

# **Certification by Head of Institution**

# Certified that Number of workshops/seminars/conferences Including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during the last five years are listed below:

2023-24	2022-23	2021-22	2020-21	2019-20
37	26	32	38	39

Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

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Khentawas, Farrukh Nagar, Gurugram - 123506 (HR)



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# <u>Academic Year 2023-24</u> <u>Workshops/seminars/conferences including programs</u> <u>conducted on Entrepreneurship</u>

# Workshop on "Artificial Intelligence Ironclad Innovators"

# 9<sup>th</sup> November, 2023

Dronacharya College of Engineering, Gurugram organized a workshop on "Artificial Intelligence Ironclad Innovators" for the B. Tech students from 9<sup>th</sup> November, 2023 on the eve of National Entrepreneurship Day. The faculty coordinators of the program were Prof. Dr. Ritu Pahwa. They gave detailed information about the college, vision, mission, the affiliating university, authorized center of excellence, library, management and faculty. The distinguished chief guests of the event were Mr. Pankaj, Lead Research Analyst, CRISIL, Mumbai. Workshop is to push the boundaries of AI technology. With a vision to create robust and resilient AI solutions, it focused on innovation that withstands challenges in dynamic and unpredictable environments. The workshop spans across machine learning, natural language processing, and advanced algorithms, aimed at transforming industries like healthcare, finance, and defense. The workshop was committed to ethical AI development, ensuring that the technologies promote fairness, transparency, and accountability. By harnessing the power of AI, students aspired to solve complex problems, optimize processes, and drive future technological breakthroughs. Their work stands as a testament to the resilience and adaptability of AI in shaping a smarter, more efficient world. He ended his talk with the discussion on the realization of the responsibility that these students carry the responsibility on their shoulders to bring a change in society by addressing and solving real life issues and bringing an innovative solution through their projects.



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#### Seminar on "Start-up Program Business Model Canvas (BMC)"

#### 22nd August 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram organized a session on "Start-up Program Business Model Canvas (BMC)" on 22<sup>nd</sup> August, 2023. 45 students attended the session. The session was led by Mr. Sachin Pathania, (Cyber security officer, Apple) and Mr. Shubham Rauthan (Assistant Manager Adani Digital Labs). The session was coordinated by Mrs. Pooja Sharma (IIC convener).

The main objective of the session was to encourage, enlighten and motivate the students to think out of the box and start their own ventures.

Speakers shared experiences of his whole journey towards a successful entrepreneur and counselled the students on how to start their own start-ups and how to take the first step towards the aim. He guided the students on how to avoid the most common mistakes made by fresher's.

Along with this, Mr. Dhruv informed the students the most used technologies in start -up world. The session ended with discussions on start-up ideas presented by students, which made them learn their flaws and do some more innovations on their idea.





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## Workshop on Entrepreneurial

#### 21st August 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram conducted the "Entrepreneurial Talk" on the 21st August, 2023 on the occasion of World Entrepreneurs Day. Prominent industry leaders shared their impactful thoughts. The speakers for the day were Mr. Anurag Upadhayay (Pragram Manager at Accenture RPA and AI Consulting/Strategy) and Dr. Anil Kumar Goswami (Fellow of IIM Kashipur, Ex. Senior Scientist/Additional Director DRDO, Ministry of Defence, Govt. of India). They enlightened the students with their insightful thoughts and encouraged those to own up to their entrepreneurial ideas.

The event began with a welcoming address to the Chief Guests, faculty and students by Prof. Shivani. She emphasized the importance of entrepreneurship and the need to change the institute from being the center of job-seekers to the center of job creators. The change in Consumer Behaviour is bringing a plethora of opportunities. She shared an example of an DCE alumnus who had a blueprint of an idea and acted upon it to leverage the opportunity.

According to speakers, an entrepreneur is someone who observes his environment and the market and understands what problems need to be solved. Mr. Anurag also suggested that one should also assess whether the solution is acceptable and adaptable by the market. He added, a businessman just runs a business, but an entrepreneur brings logic to the business idea. He shared his journey and the ups and downs he faced. He concluded his speech with a message that not all entrepreneurial ideas are successful, some might fail, but only those who learn from their mistakes will become triumphant.

Speakers also shared their experience of starting an organization with an interactive presentation. Dr. Anil emphasized, the process might be lengthy, from finding a suitable partner to an angel investor, but if one has a unique idea, then any startup can succeed. According to him, there is a need for educated and well-informed people in the agriculture domain as there is much potential for future growth in the sector.





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## Workshop on How to plan for Startup & Legal & Ethical Steps

#### **22nd August 2023**

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized session a on "How to plan for Startup & Legal & Ethical Steps". The event was coordinated by Mrs. Pooja Sharma (EEE Department). Mr. Mayank Kaushik (Vahdam India as Senior Manager- Human Resource Business Partner and Process COE), Mr. Abhinav Raghav (Trilig Energy as CEO) and Mr. Mohit Mamoria, (Tiny Studio as Founder & CEO) were the guest speakers of the seminar.

The seminar was growth-focused, practical, and empowering. It lay out and demystifies the most effective path to Startup success.

Speakers explained step-by-step how to get from concept to launch. It helped students to understand what legal form their business should take, and how to establish the company. Seminar showed them how to avoid the common pitfalls of team selection and investor relationships, and explains the different ways of funding their business. It reveals powerful ways of exploiting free or low-cost tools and platforms for growth hacking, marketing and sales. And it provides them, step by step, the methodologies and ground rules for success in rapidly monetizing their business. Students left session equipped with a set of tools, hacks, strategies and tactics, inspiring examples, and guidelines for defining, creating and growth hacking their new business.

In the end students asked their doubts related to startup and entrepreneurship. It was very knowledgeable session.





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#### Workshop for Demo Day of Start-Ups

#### 22nd - 24th August 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram organized "Demo Day of Start-ups" from 22nd - 24th August 2023. The objective of the event was to enhance student's knowledge and talent, research orientation, unstopped potential and prepare future generation of engineers to be innovative leaders, responsible

citizens and problem solvers.

Around 20 teams have registered for the event. Participants brought their software and hardware projects in competition. The teams competed against each other for best project award. They were assessed by an assessment panel of professors who appreciated them and gave them suggestions to further improvement of their projects. The participants were motivated by the guidance of Mr. Anurag Upadhayay and Dr. Anil Kumar Goswami. Prof. (Dr.) B.M.K. Prasad (Director, DCE Gurgaon) also inspired participants with his worthy words and focused on Design Thinking.

The winners of the event were as follow: Startups: Trios (Team Leader: Shivam (CSE), Team Members: Sunit (CSE), Chirag (CSE) bagged the First Prize. Team members were awarded with a cash prize of 5000/- with certificate. Team: The Way Makers (Team Leader: Siddharth Sharma (CSE), Team Members: Aryan Rakheja (AI&ML), Aditya (ECE)) was the 1st runners up. Team members were awarded a cash prize of 3000/- with certificate Team: CREW-Z (Team Leader: Tania (CSE), Team Member Utkarsh (CSE)) were the 2nd runners up. Team members were awarded a cash prize of 2000/- with certificate. Participation certificates were distributed to all the participants.

Demo Day was an opportunity and platform for students to showcase their hard work and talent in form of startups they had made. Overall, the event was wonderful and lot of creativity and innovation was learnt.



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# Session on "Making Entrepreneurship a Successful Career"

## 30th July 2023

**Dronacharya College of Engineering, Gurugram** organized an enlightening session on **''Making Entrepreneurship a Successful Career''** on 30th July 2023. The session was conducted under the guidance of Dr. Vimmi Malhotra and featured **Ms. Priyanka Madnani, Founder of Cheapest and Nearest Marketing**, as the keynote speaker. With 100 students in attendance, the session aimed to equip aspiring entrepreneurs with practical knowledge, motivation, and insights into the entrepreneurial journey.

The event highlighted the importance of innovation, risk-taking, and a growth mindset in building a successful career in entrepreneurship.

Ms. Priyanka Madnani shared her inspiring journey of founding and growing her startup, discussing the challenges she faced and how she overcame them. She emphasized the significance of identifying market needs, creating customer-centric solutions, and maintaining resilience in the face of setbacks.

The session also provided valuable guidance on building a business model, securing funding, and utilizing digital platforms for growth. Students actively participated in the interactive session, asking questions and exploring the possibilities of starting their own ventures.

The session proved to be a motivating and insightful experience, encouraging students to consider entrepreneurship as a viable and rewarding career option.



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## Workshop on "Importance of Goal Setting for Emerging Young Entrepreneurs"

### 16th-18th October 2023

**The Institution's Innovation Council (IIC) of Dronacharya College of Engineering**, Gurugram organized a three-day workshop on **"Importance of Goal Setting for Emerging Young Entrepreneurs**" from 16th to 18th October 2023.

The workshop aimed to empower students with the tools and strategies necessary to set clear, actionable goals that are essential for entrepreneurial success. A total of 78 students participated in the workshop, which was coordinated by Dr. Ashima Mehta and featured Mr. Dhruv Sharma (Founder InstaDiet Meals Pvt. Ltd.) as the keynote speaker.

Mr. Dhruv Sharma, an expert in entrepreneurial development, shared valuable insights on how effective goal setting can drive personal and professional growth. He emphasized the importance of vision, planning, and self-discipline in the entrepreneurial journey. Through interactive sessions, real-life case studies, and goal-setting exercises, students learned how to define their objectives, stay focused, and measure progress.

The workshop provided a solid foundation for young aspiring entrepreneurs, encouraging them to take proactive steps toward their future ventures with clarity and confidence.

DRONACHARYA College of Engineering	INSTITUTION'S INNOVATION COUNCIL Unverty of 1480 Instances
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Importance of Goal Setting for Emerging Young Entrepreneurs	
16 <sup>th</sup> - 18 <sup>th</sup> October , 2023	
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## Workshop on "Capital Budgeting for Entrepreneurs

# 16th-17th November 2023

**Dronacharya College of Engineering, Gurugram** organized a two-day workshop on "**Capital Budgeting for Entrepreneurs**" from 16th to 17th November 2023. The workshop aimed to equip students with essential financial planning skills crucial for entrepreneurial success. A total of 87 students actively participated in the workshop, which focused on the fundamentals of capital budgeting, investment decision-making, and financial risk assessment. The session was led by **Mr. Kartik Khullar (CEO & Founder of Grande Energy Solutions Pvt. Ltd.)**, a financial expert known for his expertise in startup finance and investment strategies.

Mr. Khullar provided in-depth knowledge on evaluating investment opportunities, calculating return on investment (ROI), and understanding the time value of money. He also highlighted various capital budgeting techniques such as Net Present Value (NPV), Internal Rate of Return (IRR), and Payback Period, with practical examples tailored to startup scenarios.

The interactive nature of the workshop, along with hands-on case studies, allowed students to apply the concepts in real-time. The session was highly beneficial in strengthening the financial acumen of aspiring entrepreneurs, helping them make informed and strategic business decisions.



### Entrepreneurship Awareness Camp 21st to 23rd November 2023

An intensive Entrepreneurship Awareness Camp (EAC) was organized by the Institution's Innovation Council (IIC) at Dronacharya College of Engineering, Gurugram from 21st to 23rd November 2023.

The camp aimed to ignite the entrepreneurial mindset among B.Tech students and equip them with the foundational knowledge required to start and manage a business venture. A total of 115 students actively participated in the three-day program, which was carefully designed to introduce them to the core concepts of entrepreneurship and innovation.

The camp featured sessions led by industry professionals, startup founders, and academic mentors, offering a blend of interactive lectures, workshops, and experiential learning activities. The program was divided into three focused days:

Day 1 covered the basics of entrepreneurship and an overview of the startup ecosystem;

Day 2 emphasized idea generation methods and business plan creation; and

Day 3 included interactions with successful entrepreneurs, startup pitching practice, and constructive feedback.

Participants explored key areas such as market research, funding options, legal compliances, intellectual property rights, and lean business model development. Additionally, students were introduced to government initiatives like Startup India and MSME support schemes, and engaged with real-world startup case studies.

The camp promoted collaborative learning through group discussions, brainstorming sessions, and peer networking. The event concluded with a certificate distribution and a formal vote of thanks, leaving students inspired to explore entrepreneurship as a meaningful career path.



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# Women Should Consider Entrepreneurship as Career Option

## 8th March 2024

On the occasion of International Women's Day, Dronacharya College of Engineering, Gurugram organized an empowering session titled "Women Should Consider Entrepreneurship as a Career Option" on 8th March 2024. The session aimed to inspire and encourage young women to explore entrepreneurship as a viable and fulfilling career path. A total of 90 participants attended the event, which was graced by Ms. Himadri Jain, Founder of Wibe Creative Services, as the keynote speaker.

Ms. Jain shared her entrepreneurial journey, highlighting the unique opportunities and challenges faced by women in the startup ecosystem. She emphasized the importance of confidence, innovation, and resilience in building a successful business. The session covered critical aspects such as overcoming gender stereotypes, balancing personal and professional life, and leveraging support networks and government schemes for women entrepreneurs. Her insights motivated the participants to consider entrepreneurship not just as a career choice, but as a powerful means of self-expression and independence. The session concluded with an interactive Q&A, leaving attendees inspired to pursue their own entrepreneurial ambitions.



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## **Motivational Session on Engineer to Entrepreneur**

## 17th March 2023

**Dronacharya College of Engineering, Gurugram** organized an inspiring motivational session titled *"Engineer to Entrepreneur"* on 17th March 2023. The session aimed to bridge the gap between technical education and entrepreneurial ambition by encouraging engineering students to explore opportunities beyond conventional career paths. A total of 67 students participated in the session, which was conducted by **Dr. Vimmi Malhotra**, a distinguished faculty member of DCE known for her expertise in innovation and entrepreneurship.

Dr. Malhotra shared valuable insights on how engineering skills can be effectively transformed into entrepreneurial ventures. She discussed the importance of problem-solving, creativity, and risktaking in starting a successful business. Through real-life examples and case studies, she illustrated how engineers can identify market needs, develop innovative solutions, and build scalable startups. The session also covered practical aspects such as business planning, team building, and leveraging emerging technologies. The interactive nature of the session encouraged students to think beyond traditional roles and sparked interest in entrepreneurship as a promising and rewarding career option.



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## **Expert talk on From School to Startups : Igniting Young Minds**

# 11th May 2024

**Dronacharya College of Engineering, Gurugram** hosted an expert talk titled "*From School to Startups: Igniting Young Minds*" on 11th May 2024, with the objective of nurturing entrepreneurial thinking among students from an early age. The session witnessed active participation from 111 students and was conducted by Dr. Ashima Mehta, (HOD, CSE).

The talk aimed to guide students in understanding how their academic experiences can be transformed into innovative business ventures within the startup ecosystem.

During the session, Dr. Mehta provided thought-provoking insights into the journey from student life to entrepreneurship, underlining the significance of creativity, confidence, and initiative.

She stressed the role of school and college as vital stages for cultivating ideas and developing skills essential for entrepreneurial success. The talk also featured discussions on startup incubation, available government support programs, and inspiring real-world startup stories.

Dr. Ashima interactive and motivational approach sparked interest and enthusiasm among the attendees, encouraging them to view entrepreneurship as a dynamic and rewarding career opportunity.



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## Session on Importance of Frugal Innovation for Start-ups

## 6th to 7th June 2024

Dronacharya College of Engineering, Gurugram organized a two-day session on "Importance of Frugal Innovation for Start-ups" from 6th to 7th June 2024, aimed at enlightening students on the value of cost-effective and resource-efficient innovation in the startup ecosystem. A total of 73 students participated in the session, which was led by Mr. Piyush Pandey, founder of Hounding Infosec Pvt. Ltd., an expert in cybersecurity and startup development. The session provided valuable insights into how startups can thrive by creating high-impact solutions with minimal resources.

Mr. Pandey emphasized the significance of frugal innovation, especially for early-stage startups operating in resource-constrained environments. He discussed how innovative thinking, simplicity in design, and leveraging local resources can lead to sustainable and scalable solutions. The session included real-world case studies, interactive discussions, and practical strategies that aspiring entrepreneurs can adopt to maximize impact while minimizing cost. Participants found the session highly informative and motivating, gaining a deeper understanding of how frugal innovation can be a powerful tool in building successful startups.



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## Session on Opportunities for Entrepreneurship in India

#### 24th June 2023

Dronacharya College of Engineering, Gurugram conducted an engaging session on "Opportunities for Entrepreneurship in India" on 24th June 2023, with the objective of inspiring students to tap into the evolving and vibrant entrepreneurial ecosystem of the country. The session saw the participation of 51 students and was led by Mr. Upender Yadav, Founder and CEO of CretEra. The discussion revolved around recognizing high-growth sectors, understanding the Indian startup landscape, and equipping students with the knowledge needed to initiate and develop their own ventures.

During the session, Mr. Yadav recounted his personal entrepreneurial experiences and shared actionable insights on validating ideas, entering competitive markets, and scaling businesses effectively. He also shed light on various government schemes such as Startup India and Make in India, along with regional initiatives that provide support to budding entrepreneurs. Key themes included technological innovation, sustainability, and emerging business trends in India. The interactive format allowed students to ask questions and engage in meaningful dialogue, encouraging them to pursue entrepreneurship with confidence and clarity.



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# Workshop on Panel Discussion on "Innovation and Startup Ecosystem Enablers"

#### 24th August 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a panel discussion on "Innovation and Startup Ecosystem Enablers" on 24<sup>th</sup> August, 2023.

The objective of the discussion was to create awareness to the students regarding the innovation ecosystem by transforming new ideas into reality and how to create that ecosystem.

The event started with a lighting of lamp followed by the speech "Your wings - Your career" by Prof. (Dr.) S. D. Joshi, where he tried reaching out to this intellectual Next Generation by giving a perspective of the career choices, they need to make to reach their individual milestones of life. The talk concluded with the need of making well informed and well-intended career choices through a holistic approach of making decisions that brings the 360-degree outlook towards life and develop personal virtues as a future leader

#### **Session Brief:**

- Fundamental Principles of Business
- Brief discussion on small scale industry
- Regulations of logistics and trademark
- Prototype testing marketing for new business
- Challenges faced after testing and check if the product is suitable for B2B or B2C Revenue model.

#### Key highlights of the session:

- How to develop business funding
- Generating funds through sponsors, market
- Idea sharing- "Do not share idea with everyone, share with industry peers"
- How to expand existing business
- Thorough study of all resources before starting business or entering market

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#### Key outcomes of the session:

- Understanding how existing market players can support and augment the growth of startups.
- Understanding how these players / companies maneuver through their logistics in order to gain maximum benefits.
- Understanding the prospects, innovative solutions, and the untapped potential of unbundling value chains.





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## Workshop on "Lean Startup & Minimum Viable Product/Business"

### 24th August 2023

The EDC cell and Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a session on Lean Start- up & Minimum Viable Product for members of EDC and IIC and other students on 24th August, 2023.

The resource person for the session was Mr. Shwetank Pandey (Senior Manager, Maruti Suzuki India Limited), Ms. Sunaina Pandit (Assistant Manager, IFB Industries Limited) and Mr. Akshit Chauhan (Digital Marketing and Research lead, Google Operation Center). The session was in tune with the national mission initiated by the Honorable Prime Minister that the youth should set up their own ventures so as to generate employment. Rather than being Job seekers they should aim at becoming Job givers. Approximately 120 students attended the session.

Speakers started with speaking about lean startups. They then went ahead to explain the difference between Proof of concept, Minimum Viable Product and Minimum Marketable Product. They explained it with the help of example of Pizza chain. They also explained in detail about the Business Model Canvas. Finally, after the end of their presentation they answered the questions posed by attendees. Mrs. Pooja Sharma, the coordinator of the event thanked them for their time and valuable knowledge.



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# Workshop on "Angel Investment/VC funding Opportunity"

### 24th August 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram organized a seminar on the topic "Angel Investment/VC Funding Opportunity for Early-Stage Entrepreneurs" was held on 24th August 2023 for the final year students. The resource person's for the seminar were Mr. Abhimanyu Srivastava( Product Manager, U20pia Mobiles ), Ms. Aayushi (SDET, Eurofins Scientific) and Ms. Deepika Dang ( Consultant, forensic ccs KPMG India).

Resource Person's highlighted the concept of Angel investors. Further insights were provided on the Angel investor's networks and how they work. The session also focused on the types and critical advantages of Angel investors. Further, the role of Venture Capital in nurturing budding startups was explained. Its various advantages and the primary distinction between angel investors and venture capital were discussed in-depth with the students.

Entrepreneurship is viewed as change, generally entailing risk beyond what is normally encountered in starting a business, which may include other values than simply economic ones. An entrepreneur is an individual who creates a new business, bearing most of the risks and enjoying most of the rewards.

An entrepreneur is a person who creates a new business venture with all the possible risks. He is the person who brings an idea to the table for a new business. Then he acquires resources, labor, and capital to set up the business, produce goods and services.

VC Funding or venture capital funding is capital that you get from investment groups that work with startups and small businesses. These groups oversee the money of investors who want to invest in companies with strong growth potential in exchange for an equity share in the business. VC funding is one way for small businesses to get money to start or grow their business.

The students with entrepreneurial interests were highly benefitted and motivated by the session. The session ended with a students' question/ answer and interaction session, where many of the students can be seen to have significant interest and potential to become successful entrepreneurs in the future.



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# Workshop on "Start-up Program Business Model Canvas (BMC)

# 2nd February 2024

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram organized a session on "Start-up Program-Business Model Canvas (BMC)" on 2<sup>nd</sup> February, 2024. 45 students attended the session. The session was led by Ms. Namrata Arora (Director Business Development @knowise) and coordinated by Prof. Pooja Sharma (IIC Convener).

The main objective of the session was to encourage, enlighten and motivate the students to think out of the box and start their own ventures.

Speakers shared experiences of her whole journey towards a successful entrepreneur and counselled the students on how to start their own start-ups and how to take the first step towards the aim. She guided the students on how to avoid the most common mistakes made by freshers. Along with this Ms. Namrata told students the most used technologies in start -up world.

The session ended with discussions on start-up ideas presented by students, which made them learn their flaws and do some more innovations on their idea.



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## Workshop on How to plan for Start-up & Legal & Ethical Steps

## 12th April, 2024

**Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram** organized a seminar on "How to Plan for Startup & Legal and Ethical Steps" on 12th April 2024. The event was coordinated by Ms. Pooja Sharma (IIC Convener). Mayank Kaushik (Vahdam India - Senior Manager- Human Resource Business Partner and Process COE), Abhinav Ragha (CEO, Trilig Energy) and Mohit Mamoria (Tiny Studio - Founder & CEO) were the guest speakers of the seminar. The seminar was growth-focused, practical, and empowering. It lay out and demystified the most effective path to Startup success.

Speakers explained step-by-step how to get from concept to launch. It helped students to understand what legal form their business should take, and how to establish the company. The speaker showed them how to avoid the common pitfalls of team selection and investor relationships, and explained the different ways of funding their business. He revealed powerful ways of exploiting free or low-cost tools and platforms for growth hacking, marketing and sales. Further, he explained the students, step by step, the methodologies and ground rules for success in rapidly monetizing their business. Students left session equipped with a set of tools, hacks, strategies and tactics, inspiring examples, and guidelines for defining, creating and growth hacking their new business.

In the end students asked their doubts related to startup and entrepreneurship. It was a very knowledgeable session.



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#### Workshop on Entrepreneurship Skill Development

#### 15th April 2024

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurgaon organized a profoundly insightful workshop on "Entrepreneurship Skill, Attitude and Behavior" on 15<sup>th</sup> April 2024. The esteemed speaker of the workshop was Dr. Shipra Arora (Innovation Ambassador).

The workshop aimed to provide invaluable insights to **80 students** of **B.Tech CSE**, **CSIT and CSE**-**AIML** Department, casting light on the indispensable skills requisite for success in the entrepreneurial landscape.

The workshop unfolded as an engaging and enriching experience for the students. Dr. Shipra Arora, drawing from her extensive expertise in the field of entrepreneurship, effortlessly captivated the audience with her profound knowledge and real-world examples.

The event kicked off with the welcome of Dr. Shipra Arora by the students, who expressed their enthusiasm with a thunderous round of applause. Her session commenced with an overview of the significance of Entrepreneurship Skills, Attitude and Behavior in shaping a triumphant career. She underscored the pivotal role of mindset, resilience, and adaptability in navigating the challenges of the business world.

The workshop comprehensively covered various facets of entrepreneurship, encompassing risk-taking, innovation, and leadership. Dr. Arora shared her personal experiences and case studies, providing practical insights that resonated profoundly with the aspiring entrepreneurs in the audience.

Throughout the two-hour duration, Dr. Arora actively fostered participation and interaction with the students. The students not only relished the session but also enthusiastically engaged in the discussion by posing thoughtful questions after a video session on Entrepreneurship. Dr. Arora's adeptness in connecting with the students and addressing their queries created a dynamic and interactive learning environment.

The workshop not only served as a platform for knowledge exchange but also instilled a heightened sense of inspiration and motivation among the students. She also underscored the importance of skills and the seamless amalgamation of behavior, making an individual not only adept at navigating the present scenario but also equipped with a positive mindset to achieve long-term goals and recognize hidden talents.

As the session drew to a close, the students expressed their gratitude to Dr. Shipra Arora for her invaluable insights, and the IIC DCE team for orchestrating such a transformative workshop. The event undeniably helped the students in charting a path to success in the professional realm.

**Benefits/Outcome:** Understood the importance of skills & the combination of behavior and a positive mindset to achieve goals & recognize hidden talents to get success.



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# Academic Year 2023-24

# Workshops/seminars/conferences conducted on Research Methodology

## Workshop on Prototype/Process Design & Development

## 22nd August 2023

**Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram** organized a workshop on "**Prototype/Process Design and Development**" on 22<sup>nd</sup> August 2023. Mr. Siddharth Sharma (Congruex Asia Pacific LLP as Design Engineer) and Ms. Richa (ST Microelectronics as Technical Head) were the resource persons for the workshop.

The event was organized as part of the initiative to celebrate G20 Presidency Year. The workshop revolved around SSIP and IIC, where speakers delved into several aspects of production development processes, entrepreneurship, and transforming knowledge into business.

The workshop aimed to provide participants with a better understanding of how to turn their innovative ideas into practical solutions. Ms. Richa explained how to navigate the journey from ideation to execution, highlighting the importance of maintaining a simple to complex business concept while developing a product. Attendees gained an understanding of the challenges associated with the product development process and the necessary steps involved in taking a concept to market. The workshop also provided a platform for networking and collaboration, allowing participants to share their experiences and ideas with peers and experts in the field.

Overall, the workshop was an opportunity for those who are looking to kick-start their entrepreneurial journey and take their product development skill to the next level.



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### Session on Innovation/Prototype Validation

## 23rd August 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram organized a session on "Innovation/Prototype Validation" from 23<sup>rd</sup> August 2023. Mr. Sandeep Ranjan (Solution Architect, HP), Mr. Rohit Goel (Director, Leafy Wheels Pvt. Ltd.), Mr. Mayank Gupta (Director, Autonexas India Pvt. Ltd.) and Mr. Prabhat Chaudhary (Associate Product Tech Support, Unicommerce eSolutions Pvt. Ltd.) were the speakers for the session.

The objective of the session was to make participants understand the process of transforming innovative ideas into successful start-ups through prototype validation.

The session commenced with the explanation of importance of prototype validation in the entrepreneurial journey. Speakers said, converting an idea into a working prototype not only validates its feasibility but also attracts potential investors and stakeholders. Participants were explained how initial concept can be converted into a tangible product or service, aligning it with market demands.

Engaging the participants, speakers emphasized the significance of agility and adaptability in the dynamic start-up landscape and elaborated on the iterative nature of prototype development, highlighting real-world examples of renowned start-ups that had successfully navigated the transition from mere innovation to sustainable business ventures.

Towards the end of session participants cleared their doubts with the speakers. It was an interactive and knowledgeable session.







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## AI Workshop: Build Your Own Generative AI Model

#### 22nd September 2023

Artificial Intelligence Ironclad Innovator (AIII) CLUB, Dronacharya College of Engineering, Gurugram organized NXTWAVE AI workshop "Build Your Own Generative AI Model" on 22<sup>nd</sup> September 2023. Mr. Trivikarma Kothinti (AI expert and IIT Delhi alumnus) was the keynote speaker of the workshop. 397 students from 3<sup>rd</sup> & 5<sup>th</sup> Semester of CSE (AI&ML)/CSE/CSIT/ECS attended the session. Dr. Shipra Arora (Associate Professor, AIML) was the coordinator of the event.

**Mr. Trivikarma** delivered a comprehensive talk on generative AI Model. The contents were well structured and delivered effectively. During the workshop, students delved into multiple AI tools such as OpenAI APIs, Gradio, Hugging Face, Google Colab. The topics covered during the workshop were highly informative, engaging the students actively involved throughout the session. In the hands-on session participants built their own AI application

It was a valuable experience for the participants contributing their personal and professional growth. They gave positive feedback which emphasized the importance of such workshops in knowledge sharing and professional development.



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### **Expert lectures on Upskilling and Reskilling**

### 13th March 2024

Dronacharya College of Engineering, Gurugram in collaboration with ICT Academy organized "Synergies: An Industry-Academia Meet" on 13<sup>th</sup> March, 2024 at college campus.

Industry experts from Ramboll were **Ms. Vidya Basarkod** (Managing Director, Ramboll India & Director, Ramboll Engineering Centre), **Ms. Lone Tvis** (Group Chief People Officer), **Mr. Michael Falkner** (Senior Director, Global HR Service Delivery), **Mr. Rohit Kumar Chaudhri**(Head HR Business Partnering, India) **Ms. Jyoti Saini**, (Head Ramboll HR Service Center & HR Operations India, ME & APAC), **Ms. Aditee Sharma** (Sr. HRBP), **Ms. Niharika**, Communication & Marketing Consultant.

Teams members of ICT Academy were **Mr. Suresh Babu** L (Associate Vice President), **Mr. Abhinandan Pandey** (State Head), **Mr. Shubham** (Relationship Manager) and **Mr. Dipak Mehta** (Corporate Relationship Manager).

The industry experts were welcomed by Tilak and scarf and green compliments. **Dr. Seema** (ICT Coordinator) then gave the brief introduction of college. Further, Mr. Michael, Ms. Vidya, Ms, Lone introduced Ramboll to the audience.

Ramboll principle is "We people for sustainable change" founded in Denmark in 1945, Ramboll today operates across 35 countries. They combine deep local insight and experience with a global knowledge base to create sustainable societies and drive positive change for their clients. They call it: Bright Ideas, Sustainable change.

Ramboll is rising to the challenge of climate change, helping move the world closer to meeting global climate and nature goals: Halving carbon emissions and being nature positive by 2030, and reaching net zero emissions by 2050. Decarbonisation brings unprecedented opportunities, massive investments, and new solutions that improve living conditions for humans and nature. Businesses and organizations want to cut their carbon footprint but face complex challenges: from defining carbon reduction roadmaps, to implementing low-carbon strategies. They have more than 400 ecologists, biologists, biodiversity consultants, and climate adaptation specialists who have implemented nature-based solutions worldwide. In step with new legislation around the world to restore and enhance biodiversity, they are ready to help clients succeed in their biodiversity ambitions. They discussed about their bigger projects which they are right now undergoing:

- 1. Development of New international Airport at Noida
- 2. Development of bigger Andheri to Ghatkopar link road

Students of different branches have asked different questions to industry experts like:

- 1. Skills required to get opportunities for freshers in Ramboll company.
- 2. During the planning of any project what precaution you take for smart mobility.
- 3. What extra courses students can undergo for getting placed in the company?

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At the end, the token of Reverence to the esteemed guests was given by Prof. Isha Malhotra (Principal, DCE). The program was a valuable learning experience for all students. It was an interactive session. The program proved to be a highly insightful and engaging event.



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## International Conference on Technological Innovative Transformation to Industry 5.0 (ICTII 5.0 - 2024)

## 23rd - 24th May 2024

Department of Computer Science and Engineering, Dronacharya College of Engineering, Gurugram organized the two-days "International Conference on Technological Innovative Transformation to Industry 5.0 (ICTII 5.0)", on  $23^{rd} - 24^{th}$  May, 2024.

The event attracted professionals, scholars, and enthusiasts from diverse fields, facilitating vibrant discussions and knowledge exchange on cutting-edge technologies and practices. With six tracks covering Artificial Intelligence and Machine Learning, Cloud Computing, Blockchain, Mechatronics, 5G/6G Technologies, and Robotics and Automation, attendees delved into distinct themes that are shaping the future of industries. The conference received numerous research papers from institutions and universities, from which 47 potential submissions were selected for presentation and are included in conference proceedings, underscoring the high-quality contributions and the significance of the event in advancing technological innovation.

**Benefit/Outcome:** The two-day conference provided a rich platform for knowledge exchange and professional development. The event fostered networking and collaboration, setting the stage for future innovations and advancements in these dynamic fields.



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### Outreach Program - Bhabha Atomic Research Centre (BARC)

#### 25th January 2024

Institution's Innovation Council (IIC), Dronacharya College of Engineering, Gurugram in association with "Bhabha Atomic Research Centre (BARC)" organized "Outreach Program" on 25<sup>th</sup> January 2024 for B.Tech students.

Two officers from BARC visited the college, during which they interacted with and addressed the Engineering/Science students, especially those in the final year, on the prospects of making a career with the DAE. They briefed about the One-year Orientation Course for Engineering Graduates and Science Postgraduates (OCES) which is a Training Programme run by the Bhabha Atomic Research Centre Training Schools (BARC TSs) at Mumbai, Kalpakkam and Hyderabad.

The training program aimed to:

- Train and subsequently absorb deserving and motivated candidates, with a Bachelor's degree in different Engineering disciplines (Mechanical, Chemical, Metallurgical, Civil, Electrical, Electronics, Computer Science, Instrumentation and Nuclear engineering) to pursue a career in frontline areas of Nuclear, Accelerator and Material Science and Technology in various units of the Department of Atomic Energy (DAE).
- Train and subsequently absorb deserving and motivated candidates, with a Postgraduate degree in different Science disciplines (Physics, Chemistry, Geology and Biosciences), to pursue a career in frontline areas of Basic science and Technology in various units of the Department of Atomic Energy (DAE).

**Benefit/Outcome:** Interactions with BARC officials provided valuable information about career opportunities and research prospects in India's premier research organization.



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# Session on Becoming a World Class Innovator Growth through Innovation

### 5th February 2024

Dronacharya College of Engineering, Gurugram organized an inspiring session titled "Becoming a World-Class Innovator: Growth through Innovation" on 5th February 2024. The session aimed to instill the importance of innovation in personal and professional growth, encouraging students to think beyond conventional boundaries and embrace creative problem-solving. The event featured Mrs. Dimple Saproo as the keynote speaker, who brought her rich experience and insights into the world of innovation and entrepreneurship.

During the session, Mrs. Saproo emphasized the mindset and skills required to become a globally competitive innovator. She highlighted how continuous learning, adaptability, and a solution-oriented approach are key drivers of innovation-led growth. The talk included real-life examples, innovation frameworks, and strategies for turning ideas into impactful outcomes. Through interactive discussions and thought-provoking questions, Mrs. Saproo motivated students to harness their creativity and pursue innovation as a core part of their academic and entrepreneurial journey. The session was well-received and left participants inspired to think big and innovate with purpose.



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# Seminar on Innovative Approaches in Research Methodology

# 10th February 2024

Dronacharya College of Engineering, Gurugram organized a seminar on "Innovative Approaches in Research Methodology" on 10th February 2024, with the objective of strengthening students' knowledge of contemporary research techniques and best practices.

The session was conducted by Dr. Ashima Mehta, Head of the Department, Computer Science and Engineering (CSE), and witnessed the participation of 51 enthusiastic students. The seminar aimed to provide aspiring researchers with the skills and methodologies required to undertake impactful and methodical research across diverse academic and technical fields.

She emphasized the transition from conventional research methods to more modern, interdisciplinary, and technology-driven approaches. She covered key aspects such as qualitative and quantitative research strategies, data analysis using software tools, ethical research practices, and the significance of innovation in framing research problems.

The session promoted analytical thinking, creativity, and methodical inquiry among students, laying a strong foundation for academic writing, research projects, and publications. The engaging format, coupled with real-world examples and interactive discussions, made the seminar both insightful and enriching for all participants.

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Seminar	
"Innovative Approaches in Research Methodology"	
	RESEARCH
Date: 10th February, 2024	
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# Workshop on "Tools and Techniques in Quantitative Research Methods

# 15th May 2023

Dronacharya College of Engineering, Gurugram conducted a workshop on "*Tools and Techniques in Quantitative Research Methods*" on 15th May 2023. The workshop aimed to familiarize students with essential quantitative research methodologies and the practical tools used for data collection and analysis. Dr. Vimmi Malhotra, a respected faculty member, led the session, providing valuable guidance on how to apply these techniques effectively in academic and technical research.

During the workshop, Dr. Malhotra covered a range of topics including statistical tools, data interpretation, and the use of software for quantitative analysis. She emphasized the importance of accuracy, reliability, and ethical considerations in conducting research. Through hands-on demonstrations and examples, participants gained practical knowledge that will help them design robust research studies and analyze data efficiently. The session was interactive and well-received, enhancing the research skills of all attendees.



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# Emerging Research Areas in Software & IT Sector

## 9th February 2024

**Dronacharya College of Engineering, Gurugram** organized the session on "**Emerging Research Areas in Software & IT Sector**". The workshop was conducted by **Dr. Shipra Arora** on 9<sup>th</sup> Feb, **2024.** The session aimed to explore innovative technologies and methodologies reshaping software development. **190 students** attended the workshop.

The session "Emerging Research Areas in Software & IT Sector" aimed to bring together students to discuss the latest trends, challenges, and opportunities in the rapidly evolving software and IT sectors. As technology continues to advance at an unprecedented pace, it becomes crucial for industry professionals and researchers to stay updated on the emerging issues and innovations shaping the future of software development and IT infrastructure. This event provided a platform for sharing insights on cutting-edge research topics, fostering collaboration, and exploring potential areas for future research.

#### **Emerging Technologies in Software Development:**

- Artificial Intelligence and Machine Learning: Exploring the integration of AI and ML in software development processes and their impact on automation, decision-making, and user experience.
- **Quantum Computing:** The potential of quantum computing to revolutionize problemsolving in software and IT, with a focus on algorithms, cryptography, and optimization.
- **Blockchain Technology:**Research in the adoption of blockchain for secure transactions, smart contracts, and decentralized applications (dApps).
- Edge Computing and Fog Computing: The role of distributed computing in enhancing performance and scalability for IoT applications and real-time data processing.

The session witnessed an overwhelming response, with 190 participants attending, including students, researchers, industry professionals, and academicians. The interactive nature of the sessions encouraged active participation, and attendees were eager to discuss and exchange ideas on emerging research trends.



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## Workshop on Innovative Teaching Methods and Pedagogy

#### 23rd September 2023

**Dronacharya College of Engineering, Gurugram**, organized a **Workshop** on **Innovative Teaching Methods and Pedagogy** to enhance teaching effectiveness and improve student engagement in the classroom on 23<sup>rd</sup> September 2023. Dr. Seema Mahlawat (Associate Professor, Gurugram University) was the eminent speaker of the workshop. The session was attended by 72 faculty members.

The workshop focused on the importance of innovative teaching strategies in the rapidly evolving education sector. The speaker introduced participants to actively learn teaching techniques like flipped classrooms, gamification, and the integration of technology in teaching. Various interactive activities were conducted to demonstrate the impact of engaging students through experiential learning.

Participants gained insights into how digital tools, case-based learning, and problem-solving approaches can enhance knowledge retention and critical thinking. The session also highlighted the role of artificial intelligence and data analytics in personalized education. Emphasis was placed on student-centric learning models that foster creativity, collaboration, and analytical skills.

The workshop concluded with a Q&A session, where participants actively interacted with the speaker, discussed real-life classroom challenges and sought practical solutions. The event received positive feedback, with participants appreciated the exposure to innovative methodologies that could transform traditional learning experiences.

The workshop was a significant step toward enhancing teaching effectiveness and preparing future educators with modern pedagogical skills.



# Session on Problem Solving and Ideation Workshop

# 26th September 2023

An ideation session is created for a structured process in which a mentor can guide participants through exercises to come up with ideas for the situation they want to solve or the product they want to develop. This workshop is a hands-on, activity-based session built around the Design Thinking process.

The session commenced with a welcome address by Prof. (Dr.) Isha Malhotra (Principal, DCE) and Prof. Neha Chauhan (HOD, ME), extending a warm welcome to industry dignitaries. At first, Mr. Tuhin Srivastava (Vice Chair students SAENIS), engaged with the students and offered insights. Following this, Mr. Anup Kacker (ED, SAENIS) shared his valuable career experiences at organizations like IOCL and Maruti Suzuki. Mr. Vivek Kumar Jakhmola (Director MTA, m EV Korean JV) delivered an expert talk on the theme "Learner to Leader," imparting valuable knowledge to the students about the various roles of leaders in the industry. Subsequently, Mr. Raghavendra Ratti (Deputy General Manager) and Avisek Das (Assistant General Manager) presented their views on recent trends and developments in the industry.

The session mainly focused on:

- Innovation methodology, framework & building on skills and tools.
- Brain storming and ideation sessions.
- Identifying Problems having business potential.
- How to conceive the idea, what are the best practices and how to build a good team?

At the outset the students were welcomed, made aware about the objective of the workshop and the initiatives of Innovation Cell (Ministry of Education, GoI). The important aspects covered by the speaker during the workshop were

- 1. The concept of Entrepreneurship
- 2. Importance of innovation and idea generation
- 3. Importance of problem solving
- 4. The skills, characteristics, attributes and functions of Entrepreneurs
- 5. The importance of creative thinking and strategic thinking

About 170 students attended the workshop. The queries of the students were very well handled by the speaker. The overall feedback of the workshop was very positive.



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## Expert talk on "Process of Innovation Development & Technology Readiness Level (TRL)" & "Commercialisation of Lab Technologies & Tech-Transfer"

## 21st February, 2024

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a Expert talk on "Process of Innovation Development, Technology Readiness Level (TRL)" on 21st February, 2024. Mr. Vijay Arora was the eminent speaker of the session. 280 students attended the session.

The main objective of this Talk was to create awareness among the students and faculty of Engineering and Science courses about the many innovative ways of technology readiness level.

The session covered the following topics:

- Process and Implications in Innovation Development
- Understanding Technology Readiness Level (TRL)
- Manufacturing Readiness Level (MRL)
- Investment Readiness Level (IRL)
- Understanding the Metric assessment of Innovation Development stages

Afterwards a question-answer session was also taken up and students cleared many doubts. Lastly, Vote of Thanks was given by Dr. Ashima Mehta. Overall, the session was very useful and students got the opportunity to learn a lot.



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# Academic Year 2023-24

## Workshops/seminars/conferences on Intellectual Property Rights (IPR)

#### **Expert Talk on Intellectual Property**

#### 26th April 2024

**Innovation Ambassadors** and **Students** of **Dronacharya College of Engineering, Gurugram** attended the **expert talk** organized by **Ministry of Education** (**MoE's Innovation Cell**) and **AICTE** on **26<sup>th</sup> April 2024**. The objective of the session was to raise awareness on the significance of intellectual property (IP) for researchers, faculty members, and students The Program highlighted the following topics:

- Why Intellectual Property (IP) is important
- How IP Benefits Innovators and Researchers
- Introduction to IP Components (Patents, Copyright, TM, GIS etc.)
- Administrative and Procedural Aspects of Patents
- IP instrument for Technology Transfers
- Case Studies

The session featured talks from speakers: Dr. P.V. Madhusudhan Rao Professor, Department of Mechanical Engineering & Design, IIT Delhi and Shri Divyanshu Mishra Assistant Controller of Patents and Designs, Patent Office, Delhi. Professor P.V. Rao, from IIT Delhi talks about the importance of intellectual property and why it is important to protect one's innovations. He mentioned that inventors often have a misconception that if they don't patent their inventions, it will make it easier to share with society. However, he argues that not having a patent can hinder the impact of the innovation because it cannot be commercialized. Shri Divyanshu Mishra discussed different types of intellectual property, such as patents, copyrights, and trademarks. He also provided information on how to file for intellectual property protection. Also, Shri Pradeep Dhage, Assistant Director, Ministry of Education Innovation Cell, presented a presentation on various IP tools and Project Management tools along with the funding opportunities available for the researchers and innovators.

The session concluded with a formal vote of thanks from Dr. Elangovan. He thanked the speakers for their time and the participants for attending the session. He also informed participants about various programs like KAPILA and NIPAM and mentioned that the MoE Innovation Cell is working on extending support for filing patents for school students and teachers. Overall, the session was a great resource to learn more about intellectual property and how to protect innovations.



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## ONE DAY WORKSHOP ON "IPR AND IP MANAGEMENT FOR START UP"

#### 29th March 2024

One day workshop on IPR AND IP MANAGEMENT FOR START UP was organized by Dronacharya College of Engineering, Gurugram. This mission of this event was to provide awareness and benefits of Intellectual property and its Rights to Students and Faculty members of the colleges. More than 380 Participants attended the event that included faculty members, staff and students of the College.

The main objective of the session was to provide awareness on intellectual property and its rights to the students of colleges/Universities and to inculcate the spirit of creativity and innovation to students of higher education.

The inaugural ceremony of the event commenced with the lighting of lamp by Mr. Mr. Arvind Chaudhary (Vice President – Natwest Group) and Mr. Lalit Chaudhary (Senior Manager – EXL Analytics), Prof. Dimple Saproo (Single Point of Contact, SPOC) and Dr. Seema (Event Coordinator) and HOD's of various department. The program was followed by Saraswati-Vandana.

Prof. Pooja Sharma welcomed esteemed resource person and all dignitaries and the participants. Prof. Pooja Sharma in her address, briefed the importance of IPR, enlightening the students with the purpose and importance of the Patents and wished for the success of the event. The program was followed by technical session taken by Mr. Arvind Chaudhary (Vice President – Natwest Group) and Mr. Lalit Chaudhary (Senior Manager – EXL Analytics).

He gave a brief introduction on IPR and discussed it importance. He explained different types of IP in detail with examples (Patents, Designs, Trade Marks, Geographical Indications, Copyrights, Semiconductor Integrated Circuits Layout – Designs (SCILD). The talk comprised every information of the different rights, terms, criterion, filing process, fees, and basic timelines related to the IPR. He also discussed the recent initiatives taken by the Govt. of India to promote IPR in the Country. He emphasized the significance of the role of a strong IPR ecosystem in the development of a country and how IPR is an essential tool for the IP holder to become a "Job giver rather than job seeker".

After technical session, the video of Dr. Mohit Gambhir, Director of Ministry of Education's Innovation Cell (MIC) was shared among the participants, to highlight the funding opportunities for patent through KAPILA scheme. The event ended with the vote of thanks by Mrs. Dimple Saproo (SPOC). Overall, the event was interactive and speaker was able to ignite and inspire participants of the institute to innovate and protect their creations.

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## <u>"Building the Pipeline of Quality Innovations and Startups in HEIs with</u> <u>Ecosystem Enablers by Creating and Managing YUKTI Innovation and IPR</u> <u>Repository (YIIR)"</u>

## 8th February 2024

Dronacharya College of Engineering, Gurugram organized a focused session on "Building the Pipeline of Quality Innovations and Startups in HEIs with Ecosystem Enablers by Creating and Managing YUKTI Innovation and IPR Repository (YIIR)" on 8th February 2024. The session was delivered by Dr. Shipra Arora, who shared her expertise on fostering innovation and entrepreneurship within higher education institutions (HEIs) through effective ecosystem support and resource management.

Dr. Arora highlighted the importance of creating a structured innovation and intellectual property repository like YUKTI Innovation and IPR Repository (YIIR) to streamline the process of nurturing quality startups and innovations. She explained how such repositories serve as valuable ecosystem enablers, facilitating idea documentation, protection, and commercialization. The talk also covered strategies to encourage collaboration, knowledge sharing, and effective management of intellectual assets in academic institutions. The session was highly informative and provided participants with actionable insights to strengthen innovation pipelines and entrepreneurial initiatives within their institutions.



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## **Concept, Scope and Nature of Intellectual Property Rights**

## 23<sup>rd</sup> September, 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram organized a session on "Concept, Scope and Nature of Intellectual Property Rights" for 3<sup>rd</sup> year students on 16<sup>th</sup> September 2023. The speaker of the session was Dr. Nahar Singh (Sr. principal scientist & honorary professor (Acsir), CSIR-NPL, New Delhi). 68 students attended the session.

Dr. Nahar Singh started the session and explained in today's knowledge-driven economy, the protection of intellectual creations has become more crucial than ever. Intellectual Property Rights (IPRs) are the legal rights that safeguard the creations of the mind, fostering innovation, creativity, and economic growth. From artistic works to technological inventions, these rights play a pivotal role in encouraging individuals and organizations to invest time, effort, and resources into developing new ideas.

Explaining the Intellectual Property Rights, Dr. Nahar said, Intellectual Property (IP) refers to intangible creations of the human intellect, encompassing a wide range of creative and innovative works. He described Intellectual Property, as a concept, "was originally designed to cover ownership of literary and artistic works, inventions (patents) and trademarks".

Next Dr. Nahar Singh explained scope of Intellectual Property Rights. He told the scope of Intellectual Property Rights is extensive, covering various aspects of human creativity and innovation. Different context where these rights apply are Economic Perspective, Cultural and Artistic Protection, Innovation and Technological Progress, Consumer Protection, Global Trade and Competition.

Moving the session further, Dr. Nahar said, the nature of Intellectual Property Rights is dynamic and evolving, shaped by societal needs, technological advancements, and legal developments. Several key characteristics define the nature of these rights. These include exclusivity, territoriality, duration, balance of interests, enforcement and protection.

In the end, he cleared the doubts of the students. It was an informative session where students gained insights of the of Intellectual Property Rights

#### Objective: To explain students about the Concept, Scope and Nature of Intellectual Property Rights

#### Benefits: Students understood how and why they should protect their innovation

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DRONACHARYA College of Engineering	RESULTION REPORT
S	ession on
"Concept, Scope and Nature of Intellectual Property Rights"	
Schedule : 23 <sup>rd</sup> September 2023 Asta Principal Dronacharya College of Engineerin	

# <u>Academic Year 2022-23</u> <u>Workshops/seminars/conferences including programs</u> <u>conducted on Entrepreneurship</u>

#### Session of "National Technology Week Exhibition"

#### 11th May 2023

**Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram** streamed an online inauguration session of "National Technology Week **Exhibition**" for its students held at Pragati Maidan, New Delhi (The MOE and AICTE Innovation Pavilion) on 11<sup>th</sup> May 2023.

The National Technology Week was held under the theme 'School to Startup - igniting young minds to innovate' from 11<sup>th</sup> -14<sup>th</sup> May 2023 at Pragati Maidan, New Delhi. The is celebrated every year on 11<sup>th</sup> May, 2023 in India. The former Prime Minister of India, Atal Bihari Vajpayee established National Technology Day in 1999 to commemorate the Pokhran Nuclear test.

Prime Minister **Shri Narendra Modi** inaugurated the programme. Stakeholder ministries and departments namely Atal Innovation Mission, NITI AAYOG, DST, DRDO, DOS, DAE, CSIR, DBT, MoES, DoT, MEITY, AICTE and DPIIT also participated in the grand expo. The day highlighted the achievements of tech giants, researchers, and engineers in technology in the country. National Technology Day is the perfect occasion to acknowledge the effort of scientists and engineers as growth drivers.

The programme also marked the commencement of the celebration of the 25<sup>th</sup> year of National Technology Day being held from the **11<sup>th</sup> -14<sup>th</sup> May**. On the momentous occasion, the Prime Minister laid the foundation stone and dedicated to the nation multiple projects related to scientific and technological advancement in the country worth more than Rs. 5,800 crores. This was in line with the Prime Minister's vision of 'Atmanirbhar Bharat' through strengthening scientific institutions in the country.

The projects whose foundation stone was laid included Laser Interferometer Gravitational Wave Observatory – India (LIGO-India), Hingoli; Homi Bhabha Cancer Hospital and Research Centre, Jatni, Odisha; and Platinum Jubilee Block of Tata Memorial Hospital, Mumbai.

The projects dedicated to Nation included Fission Molybdenum-99 Production Facility, Mumbai; Rare Earth Permanent Magnet Plant, Visakhapatnam; National Hadron Beam Therapy Facility, Navi Mumbai; Radiological Research Unit, Navi Mumbai; Homi Bhabha Cancer Hospital and Research Centre, Visakhapatnam; and Women & Children Cancer Hospital Building, Navi Mumbai.

During the programme, the Prime Minister also inaugurated the Expo showcasing scientific & technological advancements made in India in the recent past and also took a walk-through. He also released a commemorative stamp and coin on the occasion.

Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon. It was an extremely informative and enriching session that helped the students understood government role in fostering scientific and technical growth.

Attending the expo provided students with an excellent opportunity to research and learn more about the field of intellectual property, as they explored policy ideas along the lines of this year's theme for driving the increased participation of women in innovation and creativity landscape.

The event ended with the vote of thanks by Mrs. Dimple Saproo. Overall, the event was interactive and inspired participants of the institute to innovate and protect their creations.









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# NISP Refresher Session on "Design Effective Innovation & Startup Policy in HEI's"

## 16th February 2023

NISP Refresher Session on "Design Effective Innovation & Startup Policy in HEI's" was attended by Innovation Ambassadors along with students of Dronacharya College of Engineering, Gurugram on 16<sup>th</sup> February, 2023.

Keynote speaker of the session was **Mr. Dipan Sahu** (Assistant Innovation Director, MIC). He started the session by explaining about market, market failure and the factors leading to market failure. He underlined the fact the market operates in a natural manner and all the innovations must be carried out keeping the expectations of the market. He also said, critical thinking is a vital factor for producing the desired results. Moving further, he explained the concept by giving examples of Innovation and Startups, the difficulties involved with flourishing which in a nut shell are ineffective designs, plans and ideas. Moving further, he said, intervention of government, government organizations and big organizations are necessary for startups to flourish.

He then took the session forward and discussed 'Policy document' which in simple words gives vision and direction to the innovators. He also discussed the levels of Policy formulation that could be divided into Micro and Macro levels. Then he underlined two major reforms that happened in the education industry, viz: NEP and NISP. Speaking about NEP, he said there is a reduction in the curriculum in order to give space for critical and experiential learning.

He continued the session and briefed NISP. He explained, it is a policy intending to guide HEI's to promote students and faculty driven innovations and startups in HEI's. He highlighted the features of NISP, told about budget allocation of minimum 1% of institution's total budget, 2%-9.5% equity stake by the Institute's Incubator in case of using Institute's facilities/resources. He also suggested providing break for carrying innovation activities and allowing students and faculties to re-join the institute. Proper recognition and rewarding mechanism must also be set up as a part of policy formulation. He also laid stress upon setting up of pre-incubation and incubation facility at the institute's level and also suggested that both must go in a coordinated manner.

Moving further, he said, the innovation entrepreneurship must not only be used to put in CV (for faculty) or getting a job (for student). This must be carried in a continued manner. He also gave hint upon decrement in IP filing rates and also clarified that institute cannot claim ownership of the invention thus made.

He advised, institute to make their own Innovation Policy by taking reference of NISP document. In the end, he explained how NISP and ARIIA are interconnected.





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## **Entrepreneurial Talk**

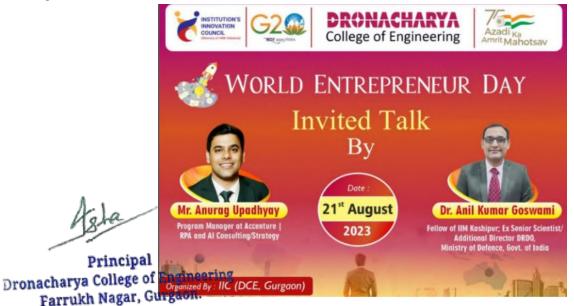
## 21st August 2022

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram conducted the "Entrepreneurial Talk" on the 21st August, 2022 on the occasion of World Entrepreneurs Day. Prominent industry leaders shared their impactful thoughts. The speakers for the day were Mr. Anurag Upadhayay (Pragram Manager at Accenture| RPA and AI Consulting/Strategy) and Dr. Anil Kumar Goswami( Fellow of IIM Kashipur, Ex. Senior Scientist/ Additional Director DRDO, Ministry of Defence, Govt. of India ). They enlightened the students with their insightful thoughts and encouraged them to own up to their entrepreneurial ideas.

The event began with a welcoming address to the Chief Guests, faculty and students by Prof. Shivani. She emphasized the importance of entrepreneurship and the need to change the institute from being the center of job-seekers to the center of job creators. The change in Consumer Behaviour is bringing a plethora of opportunities. She shared an example of an DCE alumnus who had a blueprint of an idea and acted upon it to leverage the opportunity.

According to speakers, an entrepreneur is someone who observes his environment and the market and understands what problems need to be solved. Mr. Anurag also suggested that one should also assess whether the solution is acceptable and adaptable by the market. He added, a businessman just runs a business, but an entrepreneur brings logic to the business idea. He shared his journey and the ups and downs he faced. He concluded his speech with a message that not all entrepreneurial ideas are successful, some might fail, but only those who learn from their mistakes will become triumphant.

Speakers also shared their experience of starting an organization with an interactive presentation. Dr. Anil emphasized, the process might be lengthy, from finding a suitable partner to an angel investor, but if one has a unique idea, then any startup can succeed. According to him, there is a need for educated and well-informed people in the agriculture domain as there is much potential for future growth in the sector.



## Workshop on Pitch Deck Preparation & Fundraising Techniques

## 22nd February 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a workshop on "**Pitch Deck Preparation & Fundraising Techniques**" on **22nd February 2023** to equip B.Tech students with the essential skills required to effectively present their startup ideas and secure funding. 45 students participated in the workshop.

The session focused on the key components of a successful pitch deck, including problem identification, solution overview, business model, market analysis, competitive advantage, financial projections, and team structure. Students were guided on how to communicate their ideas clearly and persuasively to potential investors, mentors, and incubators.

Experts from the startup ecosystem and venture capital firms shared insights on various fundraising techniques, such as bootstrapping, angel investment, venture capital, and crowdfunding. The workshop included live demonstrations and critique sessions where students presented mock pitches and received valuable feedback. By the end of the event, participants gained practical knowledge on building investor-ready presentations and understanding the mindset of investors, preparing them to navigate the startup funding landscape with confidence.



Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

## Seminar on Legal and Financial Literacy for Student Entrepreneurs

## **17<sup>th</sup> October 2022**

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a seminar on "Legal and Financial Literacy for Student Entrepreneurs" on 17th October 2022 to empower B.Tech students with essential knowledge about the legal and financial aspects of launching and managing a startup. 80 students attended the seminar.

The session aimed to bridge the gap between technical innovation and business execution by familiarizing students with key legal frameworks, including business registration, intellectual property rights, contracts, and compliance requirements. Students gained valuable insights into the importance of understanding legal responsibilities to avoid risks and build a strong foundation for their entrepreneurial ventures.

On the financial front, the seminar covered basics such as budgeting, accounting, taxation, funding sources, and financial planning for startups. Experts from the legal and finance domains shared real-world examples and practical advice, emphasizing how sound legal and financial literacy is crucial for long-term business sustainability. Interactive discussions and case studies helped students relate theoretical knowledge to practical scenarios, encouraging them to take informed and confident steps in their entrepreneurial journey.





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## Workshop on Use of Stock Market for Entrepreneurs

## 6<sup>th</sup> September 2022

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a workshop on "Use of Stock Market for Entrepreneurs" on 6th September 2022. 37 students participated in the workshop.

The workshop aimed at introducing B.Tech students to the significance of financial literacy and investment strategies in entrepreneurial success. The session highlighted how a solid understanding of the stock market can empower entrepreneurs to make informed financial decisions, manage capital effectively, and explore alternative funding routes for their ventures. Experts from the finance and investment sectors explained key concepts such as equity, market trends, IPOs, and risk management, tailored specifically for budding entrepreneurs.

The workshop also covered the strategic role of the stock market in scaling up startups, including how entrepreneurs can eventually take their companies public and attract investors. Real-life case studies of successful startup IPOs were shared to provide practical insights into the opportunities and challenges of stock market participation. The interactive session encouraged students to consider stock investment not just as a personal wealth-building tool, but also as a vital skill for long-term business sustainability and growth.



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## Training Session for MD Senior Secondary School Mankrola

## 21st April 2023

**Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram** organized Training cum boot camp session for Atal Tinkering Lab for students of classes VIII-XI and for teachers of Science, Math and Computer departments on Friday, 21<sup>st</sup> April **2023** of M D Senior Secondary School. **Prof. Pooja Sharma** along with **Prof. Neha Verma** were the resource person of the session enlightened them about ATL, its need and origin, Innovation council, innovation and entrepreneurship.

In the session, the objectives of Niti Aayog, Government of India for setting up ATL- a space for creation rather than observation and its utilization were discussed. Students were sensitized about the need for non-curricular based experimentation and integration of idea and theories which students generally face during their day-to-day interaction with science and its inventions.

The workshop involved the following disciplines:

- Use of Technology in various fields
- Hands-on assembly
- Presentation on concepts of innovation
- Demonstration of Arduino, 3D Printing etc.

**Prof. Neha Verma** expressed need to focus on making products which have significance in everyday life and therefore are relevant to the industry. This will allow young children to get a chance to work with tools and equipment to understand the concepts of STEM (Science, Technology, Engineering and Math). ATL contains educational and learning 'do it yourself' kits and equipment on – science, electronics, robotics, open-source microcontroller boards, sensors, 3D printers and computers.

This initiative will foster the culture of ideation, innovation, entrepreneurship, creative thinking, design thinking, prototyping, out-of-box thinking, and IP commercialization by facilitating the training (for teachers), field visits, leadership talks, awareness, orientation sessions, boot camps, national-level exhibitions, hackathons, skill modules, new courses for students, linking of school innovation ecosystem with higher educational institutions (HEIs), etc. at schools. The sessions were enriching, informative and educational leaving everyone excited and inspired.



Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

## Shaping the future of Country, 3 Days Workshop on Role of Entrepreneur towards Society

## 6<sup>th</sup> – 8<sup>th</sup> February 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized three-day workshop titled "Shaping the Future of the Country: Role of Entrepreneur Towards Society" from 6th to 8th February 2023 to instill entrepreneurial values among B.Tech students and highlight the crucial impact of entrepreneurship on societal development. The workshop focused on how young innovators can become agents of change by identifying local and national problems and offering sustainable, tech-driven solutions. Industry experts, successful entrepreneurs, and academicians shared their journeys, emphasizing the importance of social responsibility, ethical practices, and inclusive growth in entrepreneurial ventures.

Participants were engaged in hands-on activities, brainstorming sessions, and idea-pitching exercises that encouraged them to think beyond profits and consider the broader social impact of their innovations. Topics such as social entrepreneurship, startup ecosystem in India, funding opportunities, and government schemes like Startup India were discussed in detail. The workshop aimed to empower students with the mindset and tools necessary to drive societal progress through innovation, making them not just job-seekers but job-creators and responsible citizens.







## Workshop on Entrepreneurship and Innovation as Career Opportunity

## 2<sup>nd</sup> February 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram organized a session on "Entrepreneurship & Innovation as Career Opportunity" for B.Tech students on 2<sup>nd</sup> February, 2023. The speaker of the session was Mr. Sushil Kumar Aggarwal, (Chairman & Director Avro India Limited). 45 students attended the session. The main objective of the session was to inform students about the career opportunities in Entrepreneurship and Innovation and encouraging them to make positive changes in society.

Mr. Aggarwal explained, India is a vast country and the need for carrying innovative projects and starting of fresh start ups is a must to increase employment opportunities and thus growth in GDP. He explained, entrepreneurship in detail, roles of an entrepreneur and barriers associated with entrepreneurship. He explained that making profits from a business is a long and risky affair. He illuminated many examples for the easy understanding of the students.

In the end, an interactive question and answer session was conducted to satisfy the doubts of the students. Students of Dronacharya Group of Institutions, Greater Noida extracted a lot of valuable information from the session. The session ended with a vote of thanks by the Principal Prof. (Dr.) Isha Malhotra.

**Objective**: To make students aware about the career opportunity in Entrepreneurship and Innovation. **Benefits**: Students got to know about entrepreneurship in detail, roles of an entrepreneur and barriers associated with entrepreneurship.





Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.



## Session on "Lean Start-up & Minimum Viable Product/Business"

## 27th August 2022

# The EDC Cell and Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a session on "Lean Start - up & Minimum Viable Product/Business" on 27<sup>th</sup> August, 2022.

The session was in tune with the national mission initiated by the Honorable Prime Minister that the youth should set up their own ventures so as to generate employment.

**Dr. Shipra Arora**, the resource person of the session, was delighted to share her experience in this regard and said, "Lean start-up is an approach to building new ideas based on self-belief that entrepreneurs must test and recapitulate as they develop products". Rather than being job seekers they should aim at becoming job givers.

She also went on to explain the five principles of lean start-ups. She also stressed on the fact, Lean Start-up provides a scientific approach to creating and managing start-ups and getting a desired product to customers' hands faster. **Dr. Shipra Arora** started with speaking about lean startups. She then went ahead to explain the difference between Proof of concept, Minimum Viable Product (MVP) and Minimum Marketable Product (MMP). She explained it with the help of example of Pizza chain. She also explained in detail, the Business Model Canvas. Finally, after the end of her presentation, she answered the questions asked by attendees.

Mrs. Pooja Sharma, the coordinator of the event gave vote of thanks.



Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

## Workshop on Design Thinking, Critical Thinking and Innovation Design

## <u>26<sup>th</sup> – 27<sup>th</sup> February 2023</u>

The Workshop includes • Design Thinking Skills • The psychological principles of problem solving and creativity. • The relationship between creativity, problem solving, and product performance Institution's Innovation Council, Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram conducted a session on "Design Thinking, Critical Thinking and Innovation Design" on 27th February, 2023. Third Year B.Tech students attended the program. Mr. Naveen Verma, Design Engineer. Congruex Asia Pacific, LLP was the resource person of the interactive session. He spoke about innovation and creative thinking to the students who aspire to start their own ventures. He insisted on continuous critical thinking on products and adapt to the needs of the customers. Mr. Naveen highlighted the fact to carry innovation, critical thinking is a vital parameter. Assumptions must be made and there should be no lacking in the efforts to make the assumptions a reality. To make an idea a successful reality, proper application of the thoughts is also necessary. The session also covered how Design Thinking and Critical Thinking abilities are used to produce what customers really want. Towards the last, a detailed question-answer session took place and students cleared many misconception.



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## Workshop on Entrepreneurship Skill, Attitude and Behavior Development

## 8<sup>th</sup> February 2023

As a part of the initiative of Ministry of Education, Innovation Cell (Government of India) -Institution's Innovation Council (MoE), organized an Entrepreneurship Skill, Attitude and Behavior Development Workshop on 8th February 2023.

The objectives of the workshop were

- To tell the students, the importance of innovation and idea generation.
- To develop them on out of the box thinking
- To develop problem solving skills of students
- To develop Entrepreneurial skills
- To make them successful future Entrepreneurs

The resource person for the workshop was Ms Kirti Gera, At the outset the students were welcomed, made aware about the objective of the workshop and the initiatives of Innovation Cell (Ministry of Education, GoI). The important aspects covered by the speaker during the workshop were

- The concept of Entrepreneurship
- Importance of innovation and idea generation
- Importance of problem solving
- The skills, characteristics, attributes and functions of Entrepreneurs

• The importance of creative thinking and strategic thinking About 100 students attended the workshop. The queries of the students were very well handled by the speaker. The overall feedback of the workshop was very positive.



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## <u>Session on Accelerators/Incubation - Opportunities for Students & Faculties -</u> Early Stage Entrepreneurs

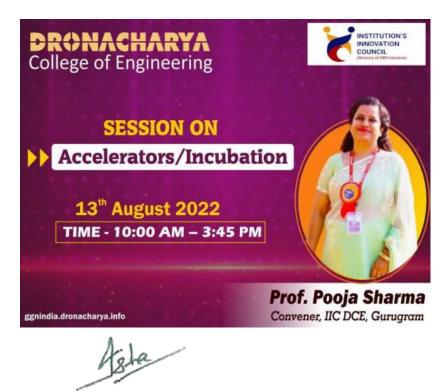
# 13<sup>th</sup> August 2022

The speaker for the session was Prof. Pooja Sharma. She is the convener, DCE, Gurugram. This session was conducted on behalf of the by Incubation Centre. The speaker covered various important points about:

• What services they offer for young entrepreneurs like mentoring, coworking space, legal accounting, and access labs to company registration.

- How their Incubation program takes place like from Ideation to discover to growth stage.
- She also talked about the successful start-ups in which they helped.
- She also talked about their achievements and awards.
- They also have well equipped lab which recognized by IIT Bombay. Learning Outcomes:
- Students got well versed with the concept of Incubation.

• The session helped young entrepreneurs who need necessary mentoring when they have an idea running in their mind.



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## Session on Out of the box thinking for problem solving

## 28<sup>th</sup> June 2022

Out of the box thinking is a metaphor that means to think differently, unconventionally, or from a new perspective. This phrase often refers to novel or creative thinking. To think outside the box is to look further and to try not thinking of the obvious things, but to try thinking of the things beyond them or even other than them. This was explained by Prof V Kamakoti in depth with the help of real-life examples which enabled students to understand why out of the box thinking is important in today's competitive world and how it gives you an edge when dealing with real life scenarios.

Prof Kamakoti further introduced a course on Out of the box thinking which IIT Madras is launching where candidates will be taught to find solutions to problems by using reasoning that is not immediately obvious and involving ideas that may not be obtainable by using only traditional stepby-step logic. In this unique course, such thinking is emphasized through rediscovering the known and unknown facts of mathematics logically with an interesting broader perception and the manner of doing it.



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# Academic Year 2022-23 Workshops/seminars/conferences conducted on IPR

#### Seminar on IPR Awareness

#### 16th February, 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurgaon organized a seminar on "IPR Awareness" under the National Intellectual **Property Awareness Mission (NIPAM)** on 16th February 2023. The session aimed to educate students and faculty members about the importance of Intellectual Property Rights (IPR) and its role in fostering innovation and protecting creative ideas. A total of 130 students and faculty members actively participated in the seminar, engaging in discussions on the process of patent filing, legal aspects of IPR, and the significance of safeguarding innovations in the technological era.

The event was graced by Mr. Prashant Sharma, NIPAM Officer, Examiner of Patents & Designs, and Group A Gazetted Officer, who served as the keynote speaker. His insightful session covered various aspects of patents, trademarks, copyrights, and industrial designs, emphasizing how intellectual property can be leveraged for academic and professional growth. The interactive nature of the session provided attendees with practical knowledge and encouraged them to explore IPR as a valuable asset in their academic and entrepreneurial journey.

At the end of the session, **certificates of participation** were distributed to all attendees. The seminar was an enriching experience, reinforcing the institution's commitment to **fostering a culture of research, innovation, and intellectual property protection** among students and faculty.

The event concluded on a high note, with participants gaining valuable insights into the evolving landscape of **intellectual property rights and innovation-driven growth**.



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## Seminar on "Tools and Techniques for Patent Filing"

## 4<sup>th</sup> February 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram conducted a seminar on "Tools and Techniques for Patent Filing" on 4th February, 2023. 43 students attended the seminar. The speaker of the seminar was Prof. Dimple Saproo (Head, RDC). She started the session by explaining about Patents. She explained that a patent is an exclusive right for an invention which could be in the form of product, process or idea and exclude others from using, making or selling it. To get this right, information pertaining to the invention is required to be filed through an application. Moving further, she discussed various tools and techniques available for Patent filing. Patent Filing Process was discussed in detail.

She illuminated the students that the Inventors can file the patent by themselves or can take the help of any patent filing agency or professional. Then, search if the invention is patentable or not. The next step in the process of Patent filing includes the drafting of the Patent application. If the invention is in te sting stage only, she guided all to go for Provisional Patent Application.



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## Workshop on Intellectual Property Rights (IPRs) and IP management for start up

## 29<sup>th</sup> March 2023

The main objective of the session was to provide awareness on intellectual property and its rights to the students of colleges/Universities and to inculcate the spirit of creativity and innovation to students of higher education. The inaugural ceremony of the event commenced with the lighting of lamp by Mr. Mr. Arvind Chaudhary (Vice President – Natwest Group) and Mr. Lalit Chaudhary (Senior Manager – EXL Analytics), Prof. Dimple Saproo (Single Point of Contact, SPOC) and Dr. Seema (Event Coordinator) and HOD's of various department. The program was followed by Saraswati-Vandana. Prof. Pooja Sharma welcomed esteemed resource person and all dignitaries and the participants. Prof. Pooja Sharma in her address, briefed the importance of IPR, enlightening the students with the purpose and importance of the Patents and wished for the success of the event. The program was followed by technical session taken by Mr. Arvind Chaudhary (Vice President – Natwest Group) and Mr. Lalit Chaudhary (Senior Manager – EXL Analytics).

He gave a brief introduction on IPR and discussed it importance. He explained different types of IP in detail with examples (Patents, Designs, Trade Marks, Geographical Indications, Copyrights, Semiconductor Integrated Circuits Layout – Designs (SCILD). The talk comprised every information of the different rights, terms, criterion, filing process, fees, and basic timelines related to the IPR. He also discussed the recent initiatives taken by the Govt. of India to promote IPR in the Country. He emphasized the significance of the role of a strong IPR ecosystem in the development of a country and how IPR is an essential tool for the IP holder to become a "Job giver rather than job seeker". After technical session, the video of Dr. Mohit Gambhir, Director of Ministry of Education's Innovation Cell (MIC) was shared among the participants, to highlight the funding opportunities for patent through KAPILA scheme. The event ended with the vote of thanks by Mrs. Dimple Saproo (SPOC). Overall, the event was interactive and speaker was able to ignite and inspire participants of the institute to innovate and protect their creations.



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## Workshop on Patent Search and Patent Drafting Techniques

## 22<sup>nd</sup> February 2023

A workshop on "**Patent Search and Patent Drafting Techniques**" was conducted on 22<sup>nd</sup> **February 2023** to introduce B.Tech students to the foundational aspects of intellectual property rights, with a special focus on patents. 114 students participated in the workshop.

The session aimed to build awareness about the importance of protecting technological innovations and guided students on how to perform effective patent searches using various national and international databases. Through hands-on demonstrations, participants learned how to identify prior art, evaluate the novelty of their ideas, and avoid potential infringements.

The workshop also covered the step-by-step process of drafting a patent application, including the structure of claims, specification writing, and legal language used in filings. Experts from the IPR field shared practical tips and real-life examples to help students understand how to translate technical inventions into strong patent applications. The event served as a valuable learning experience for aspiring innovators, encouraging them to incorporate IPR strategies early in their project development cycle to safeguard their creative work.



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## Workshop on IPR Challenges in Artificial Intelligence (AI) and Machine Learning

## 13<sup>th</sup> July 2022

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a workshop on "IPR Challenges in Artificial Intelligence and Machine Learning" on 13<sup>th</sup> July 2022. The workshop was conducted to raise awareness among B.Tech students about the evolving landscape of intellectual property rights in the era of rapidly advancing technologies. 28 students participated in the workshop. The session explored how AI and ML innovations challenge traditional notions of inventorship, authorship, and patent eligibility. Experts from academia and industry highlighted real-world case studies where AI-generated outputs posed legal ambiguities, encouraging students to critically examine the ethical and legal frameworks surrounding these technologies. The event provided insights into global trends in IPR policies, particularly concerning machine-created works and algorithmic inventions.

The workshop also focused on equipping students with practical knowledge to protect their innovations and understand ownership rights in collaborative tech-driven environments. Participants engaged in interactive discussions, exploring scenarios where AI systems play a dominant role in decision-making and creation. The event emphasized the importance of early IPR awareness for future engineers, especially in sectors where AI and ML are at the forefront. Overall, the workshop served as a platform to bridge the gap between technology and law, fostering a culture of innovation with responsibility and legal foresight.



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# Academic Year 2022-23

# Workshops/seminars/conferences conducted on Research Methodology

# Session on "Design Thinking, Critical Thinking and Innovation Design"

## 27th February 2023

Institution's Innovation Council, Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram conducted a session on "Design Thinking, Critical Thinking and Innovation Design" on 27<sup>th</sup> February, 2023. Third Year B.Tech students attended the program. Mr. Naveen Verma (Batch 2021, ME Department), Design Engineer. Congruex Asia Pacific, LLP was the resource person of the interactive session.

Ms. Renu Dua (T&P Head) welcomed Mr. Naveen and presented a bouquet to him. She gave a brief introduction of the guest and asked him to take charge of the dais and share his experiences.

**Mr. Naveen** started the session and told about his campus days, number of projects he undertook during his B.Tech journey and the importance of gaining practical knowledge. Further, he shared his journey at Congruex Asia Pacific. Then, **Mr. Naveen** highlighted the fact to carry innovation, critical thinking is a vital parameter. Assumptions must be made and there should be no lacking in the efforts to make the assumptions a reality. To make an idea a successful reality, proper application of the thoughts is also necessary.

The session also covered how Design Thinking and Critical Thinking abilities are used to produce what customers really want. Towards the last, a detailed question-answer session took place and students cleared many misconception. The program gave an opportunity to the students to learn from alumnus rich experience and also gained insights of industry.

Lastly, **Prof. Neha Chauhan** (HOD, ME Department) gave vote of thanks to Mr. Naveen for sharing valuable information with the students.





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## Workshop on Data Analytics and AI Applications in Research

## **<u>17th February, 2023</u>**

**Dronacharya College of Engineering, Gurugram**, successfully organized a **Workshop** on **Data Analytics and AI Applications in Research** to equip teaching staff with essential analytical skills and knowledge of artificial intelligence in academic and industrial research. The session was attended by **45 faculty members** who gained valuable insights into the latest advancements in datadriven decision-making and AI techniques.

The workshop provided a comprehensive overview of data analytics methodologies and their significance in solving real-world research problems. The session began with an introduction to fundamental concepts of data analytics, including data collection, preprocessing, visualization, and statistical analysis. The speaker emphasized the role of AI in enhancing research outcomes, covering machine learning algorithms, predictive modeling, and deep learning applications.

A key highlight of the workshop was the hands-on session, where participants explored various AIdriven analytical tools and frameworks. The participants engaged in practical demonstrations using Python, R, and AI-powered data analysis techniques, gaining a better understanding of how AI can optimize research processes.

Throughout the session, the speaker encouraged interactive discussions and addressed attendees' queries on AI's role in data interpretation, automation, and predictive analytics. The session concluded with a Q&A segment, where participants discussed the application of AI in different research domains, including healthcare, finance, and engineering.

The workshop received positive feedback from participants, who appreciated the practical approach and industry relevance of the topics covered. The event reinforced the significance of data analytics and AI in modern research, empowering participants with the necessary skills to enhance their academic and professional pursuits.





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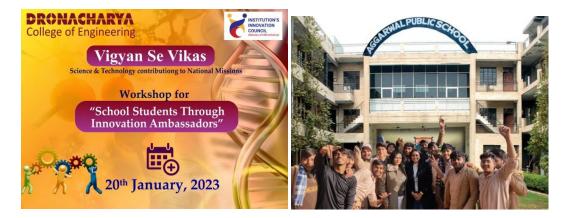
#### Workshop for "School Students through Innovation Ambassadors"

#### 20th January 2023

Institution Innovation Cell (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a workshop for school students. Ms. Akancha Shekhar (Innovation Ambassador, IIC, DCE, Gurgaon) visited Aggarwal Public School, Ballabhgarh on 20<sup>th</sup> January, 2023.

She addressed on the topic "Vigyan se Vikas" and illuminated the students about the benefits of studying science and pursuing innovation. Students were made aware of the need to think logically and carrying innovative ideas. Further, she told all the students about the importance of participating in innovative activities at individual and group levels for the benefit of the country at large. She also explained, there are areas/fields wherein there are ample of opportunities for the youth of the nation to explore. She explained about the innovation practices through the examples of 5G technology. She also explained various renewable and non-renewable energy resources and the need to use them optimally. Reference of Electric Vehicles and the surging use of ethanol were also given by her to explain how innovation has reached to all the fields.

At the end, students asked the queries and the same were answered by the Innovation Ambassador. The impact of the session on students was overwhelmingly positive.



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## Workshop on My Story – Motivational Session by Successful Innovators

## 12<sup>th</sup> October 2022

Alumni Shubham Rauthan (Adani Digital Labs), Shivani Rao(Indigo Airlines), Vipin Chander(AdaniDigital Labs), Bhashkar Bhawani Nandan (Research & Development Engineer, Keysight Technologies) and Yognath R (5G Product Design and Development VVDN Technologies) enlightened students on various topics. Before campus visit, session on "The Guide to your Dreams" covering topics: Compose Camp, Kortlin and demo of already build projects took place, thereby selecting and providing the selected students with learning and networking opportunities to enhance their learning. This talk with industrial expert helped students a lot. It gives them an exposure to working of industry with all the present requirements and requires innovations. Speakers spoke about the skills required by a successful social enterprise owner and the desire to improve their world, to be productive, to have the ability to spot new trends, and to deal with failure. They also talked about their revolutionary innovations in the field of agriculture. Along with the simple innovations which social entrepreneurs can do with the help of inventions of their time was also shared with students as these can have more impact on the society and its issues too. They further encouraged the students to follow their passion according to their skills.



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## **Problem Solving and Ideation Workshop**

## **15<sup>th</sup> March 2023**

An ideation session is created for a structured process in which a mentor can guide participants through exercises to come up with ideas for the situation they want to solve or the product they want to develop. This workshop is a hands-on, activity-based session built around the Design Thinking process.

The session mainly focused on: • Innovation methodology, framework & building on skills and tools. • Brain storming and ideation sessions. • Identifying Problems having business potential. • How to conceive the idea, what are the best practices and how to build a good team? At the outset the students were welcomed, made aware about the objective of the workshop and the initiatives of Innovation Cell (Ministry of Education, GoI). The important aspects covered by the speaker during the workshop were

- 1. The concept of Entrepreneurship
- 2. Importance of innovation and idea generation
- 3. Importance of problem solving
- 4. The skills, characteristics, attributes and functions of Entrepreneurs
- 5. The importance of creative thinking and strategic thinking

About 170 students attended the workshop. The queries of the students were very well handled by the speaker. The overall feedback of the workshop was very positive.





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## Expert Talk on "Process of Innovation Development, Technology Readiness Level (TRL)

## 21<sup>st</sup> February 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a Expert talk on "Process of Innovation Development, Technology Readiness Level (TRL)" on 21st February, 2023. Mr. Vijay Arora was the eminent speaker of the session. 286 students attended the session. The main objective of this Talk was to create awareness among the students and faculty of Engineering and Science courses about the many innovative ways of technology readiness level. The session covered the following topics:

- Process and Implications in Innovation Development
- Understanding Technology Readiness Level (TRL)
- Manufacturing Readiness Level (MRL) Investment Readiness Level (IRL)

• Understanding the Metric assessment of Innovation Development stages Afterwards a questionanswer session was also taken up and students cleared many doubts.

Lastly, Vote of Thanks was given by Dr. Ashima Mehta. Overall, the session was very useful and students got the opportunity to learn a lot.





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## Seminar on DigitAll: Innovation and Technology for Gender Equality

## **3<sup>rd</sup> March 2023**

Institution's Innovation Council (IIC), Ministry of Education (MoE) and NSS Units Dronacharya College of Engineering, Gurugram celebrated "Women's Day" from 1st - 8th March, 2023. The female faculty members, staff members and girl students of the college attended the programme. The theme of women's day was DigitAll: Innovation and technology for gender equality. The theme was aligned with the priority theme for the upcoming 67th session of the Commission of the status of women (CSW67).

There were three chief guests for the event: 1. Yogita Shukla who is an interdisciplinary professional with the core passion towards scientific research, technology promotion and sustainable living that is very important to build harmony between natural ecosystems for sustainable and healthy living. 2. Mukta Girdhar has more than 24 years of imparting education in the field of Disaster Management and GIS. She motivated women to be empowered and excel in multidisciplinary fields. 3. Meera Iyer, Founder & Director, Inspired Living and Senior Psychologist. She is also a Child and Adolescent Psychologist with Ph.D. in Cyber psychology. She spoke to women on weaving relationships: Love, Compassion and Assertiveness. During the entire week celebration, students and faculty members participated in various activities and games.

Many technical sessions were also taken by the Chief Guests. Staff members also voluntarily spoke upon many arousing topics related to Women. Work-life balance was one of the important topics on which everyone shared their views. It was an endeavour to acknowledge a woman's struggles and obstacles on their way to a better life and women security. Lastly, Program Coordinator Dr. Ashima Mehta thanked the Chief Guests.





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# <u>Academic Year 2021-22</u> <u>Workshops/seminars/conferences including programs</u> <u>conducted on Entrepreneurship</u>

## Session on "Start-up Program-Business Model Canvas (BMC)"

## 28th May 2022

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram organized a session on "Start-up Program-Business Model Canvas (BMC)" on 28th May, 2022. The session was led by Mr. Dhruv, founder of Instadiet and coordinated by Mrs. Renu, Assistant Professor (CSE).

The main objective of the session was to encourage, enlighten and motivate the students to think out of the box and start their own ventures.

**Mr. Dhruv** shared experiences of his whole journey towards a successful entrepreneur and counselled the students on how to start their own start-ups and how to take the first step towards the aim. He guided the students on how to avoid the most common mistakes made by freshers. Along with this Mr. Dhruv informed the students with the mostly used technologies in start -up world.

The session ended with discussions on start-up ideas presented by students, which made them learn their flaws and do some more innovations on their idea.



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# Seminar on "How to Plan for Startup & Legal and Ethic Steps" 27th May 2022

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized "Dronathon 2022" from 26<sup>th</sup> - 28<sup>th</sup> May 2022. Under Dronathon, seminar on "How to Plan for Startup & Legal and Ethic Steps" was conducted on 27<sup>th</sup> May 2022. The event was coordinated by Mrs. Pooja Sharma (EEE Department). Ms. Priyanka Madnani (Founder & CEO, Easy to Pitch) was the guest speaker of the seminar.

The seminar was growth-focused, practical, and empowering. It lay out and demystifies the most effective path to Startup success.

**Ms. Priyanka Madnani** explained step-by-step how to get from concept to launch. It helped students to understand what legal form their business should take, and how to establish the company. Seminar showed them how to avoid the common pitfalls of team selection and investor relationships, and explains the different ways of funding their business. It reveals powerful ways of exploiting free or low-cost tools and platforms for growth hacking, marketing and sales. And it provides them, step by step, the methodologies and ground rules for success in rapidly monetizing their business. Students left session equipped with a set of tools, hacks, strategies and tactics, inspiring examples, and guidelines for defining, creating and growth hacking their new business.

In the end students asked their doubts related to startup and entrepreneurship. It was very knowledgeable session.



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## Panel discussion with innovation and Start-up Ecosystem Enablers

## 26<sup>th</sup> May 2022

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized Panel discussion with innovation and Start-up Ecosystem Enablers on 26<sup>th</sup> May 2022.

The Objective was to create awareness to the students regarding the Innovation ecosystem by transforming new ideas into reality through access and financial investment and how to create that ecosystem.

The event started with a lighting of lamp followed by the Motivational speech "Your wings - Your career" by Dr. Rajeev Mehajan, where he tried reaching out to this intellectual Next Generation by giving a perspective of the career choices, they need to make to reach their individual milestones of life. The talk concluded with the need of making well informed and well-intended career choices through a holistic approach of making decisions that brings the 360-degree outlook towards life and develop personal virtues as a future leader. This talk was followed by the skill-oriented capacity building sessions on "Cybersecurity" and "Design Thinking" by another two guest speakers Mr. Sandeep Jain, the founder GeeksforGeeks and Dr. Sangeeta Taneja the founder member Innovative design respectively.

Session Brief:

- Fundamental Principles of Business
- Brief discussion on small scale industry
- Regulations of logistics and trademark
- Prototype testing marketing for new business
- Challenges faced after testing and check if the product is suitable for B2B or B2C Revenue model

Key highlights of the session:

- How to develop business funding
- Generating funds through sponsors, market
- Idea sharing- "Do not share idea with everyone, share with industry peers"
- How to expand existing business
- Thorough study of all resources before starting business or entering market

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- Understanding how existing market players can support and augment the growth of startups
- Understanding how these players / companies maneuver through their logistics in order to gain maximum benefits
- Understanding the prospects, innovative solutions, and the untapped potential of unbundling value chains.





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## Seminar on "From Campus to Company: How to Launch a Start-up Before Graduation"

## 13<sup>th</sup> May 2022

A seminar on **"From Campus to Company: How to Launch a Start-up Before Graduation"** was held on **13th May 2022**, aimed at inspiring and guiding B.Tech students to transform their innovative ideas into successful startups while still pursuing their academic degrees. The session focused on the early entrepreneurial journey—starting from ideation, team formation, and validation to launching a venture and managing its initial growth.

Industry experts and young entrepreneurs shared practical insights, challenges, and real-life experiences to help students understand the startup ecosystem. Key topics included identifying market gaps, building a Minimum Viable Product (MVP), leveraging campus resources and incubation centers, and navigating funding opportunities. The seminar empowered students with the mindset, motivation, and actionable strategies needed to kick-start their entrepreneurial journey before graduation.



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## Session on "StartUp Failures: Learning from Mistakes"

## **<u>10<sup>th</sup> February 2022</u>**

A session on "Startup Failures: Learning from Mistakes" was conducted on 10th February 2022 to help B.Tech students understand the critical lessons that can be drawn from unsuccessful entrepreneurial ventures. The session aimed to break the stigma around failure and emphasized its role as a stepping stone to success in the startup ecosystem. Through real-life case studies and personal stories shared by experienced entrepreneurs, students gained insights into common pitfalls such as poor market research, weak business models, team mismatches, and lack of customer validation.

The session encouraged students to analyze failure not as a setback, but as a valuable learning opportunity that can refine strategies and improve future outcomes. Interactive discussions focused on how to identify early warning signs, pivot business ideas, and manage risks effectively. By fostering a culture of openness and resilience, the event empowered students to embrace challenges, adapt quickly, and approach their entrepreneurial journey with a mindset geared toward continuous learning and growth.



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## Workshop on Cultivating Entrepreneurial Competencies and Positive Business Mindsets

## **<u>11<sup>th</sup> January 2022</u>**

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a workshop on Cultivating Entrepreneurial Competencies and Positive Business Mindsets on 11<sup>th</sup> January 2022. 105 students attended the workshop.

The workshop aimed to inspire and prepare B.Tech students for entrepreneurial ventures by focusing on the essential skills, attitudes, and behaviors required for success. The session emphasized the development of a proactive mindset, risk-taking ability, resilience, and innovation-driven thinking. Through interactive activities and motivational talks, students were encouraged to adopt a solutionoriented approach and embrace challenges as opportunities for growth.

Experienced entrepreneurs and mentors shared their journeys, highlighting the importance of perseverance, adaptability, and ethical decision-making in business. The workshop also included team-based exercises that promoted leadership, collaboration, and effective communication—key traits for any aspiring entrepreneur. By the end of the session, students gained valuable insights into how cultivating the right mindset and competencies can significantly enhance their entrepreneurial potential and career prospects.



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## Workshop on "Entrepreneurship Skill, Attitude and Behavior Development"

#### **10th January 2022**

As a part of the initiative of Ministry of Education, Innovation Cell (Government of India) Institution's Innovation Council (MoE), Dronacharya College of Engineering, Gurugram organized a workshop on "Entrepreneurship Skill, Attitude and Behavior Development Workshop" on 10<sup>th</sup> January 2022. The resource person for the workshop was Ms. Kirti Gera (Course mentor at geeksfor geeks, NIT Jamshedpur). Students from all Engineering Departments attended the workshop.

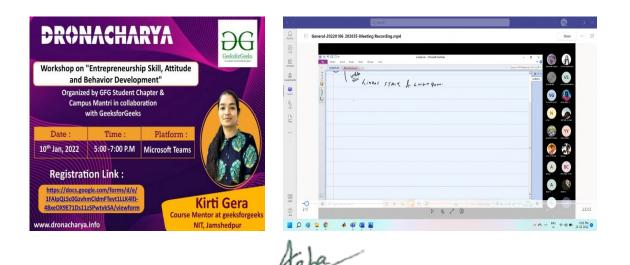
The objectives of the workshop were

- To tell the students, the importance of innovation and idea generation.
- To develop them on out of the box thinking
- To develop problem solving skills of students
- To develop Entrepreneurial skills
- To make them successful future Entrepreneurs

At the outset the students were welcomed, made aware about the objective of the workshop and the initiatives of Innovation Cell (Ministry of Education, GoI). The important aspects covered by the speaker during the workshop were:

- The concept of Entrepreneurship
- Importance of innovation and idea generation
- Importance of problem solving
- The skills, characteristics, attributes and functions of Entrepreneurs
- The importance of creative thinking and strategic thinking

The queries of the students were very well handled by the speaker. Overall workshop was knowledgeable.



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## Session on Aligning Solutions with Real-World Problems and Market Needs

## 12<sup>th</sup> November 2021

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a session on "Aligning Solutions with Real-World Problems and Market Needs" on 12<sup>th</sup> November 2021. 107 Students attended the Talk.

The objective of the session was to help the B.Tech students understand the importance of validating their ideas against actual user needs and market demands. The session focused on the concepts of **problem-solution fit** and **product-market fit**, emphasizing the need for entrepreneurs and innovators to ensure their solutions effectively address genuine problems before scaling up.

Through interactive discussions and real-life case studies, participants learned how to identify target audiences, assess market potential, and refine their product ideas based on feedback and data. Industry experts shared practical frameworks and tools to evaluate whether a solution truly solves the intended problem and whether there is a viable market willing to adopt it. The session encouraged students to think critically and iteratively, reinforcing the value of user-centric innovation in the entrepreneurial journey.



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#### **Expert Talk on Industrial Automation**

## 22<sup>nd</sup> October 2021

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized an Expert Talk on Industrial Automation on 22<sup>nd</sup> October 2021. 106 Students attended the Talk.

The main objective of this session was to make the aspiring engineers acquainted with the conceptual as well practical knowledge of the Industrial Automation & latest technologies being used to Industrial Achieve automation. The notion of organizing this session is to inculcate the basic fundamentals of automation in the students and provide them with a platform to work on, in The Near Future. Breaking into an established industry, especially one as focused as industrial technology, can be a feat that many smaller organizations find nearly impossible. Success here requires a business to provide services, software, or hardware devices that existing organizations do not already provide or do not provide in a way that addresses specific market needs. By focusing on such specific needs, new companies can create the opportunity to break through the noise of the already over-crowded automation space. This session was organized to showcase how companies are doing this effectively. Dr. Isha Malhotra, Principal, DCE witnessed the event and gave vote of thanks.



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## **Session on Problem Solving and Ideation**

#### **<u>21<sup>st</sup> October 2021</u>**

**Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram** organized a session on "**Problem Solving and Ideation**" on 21<sup>st</sup> October 2021. An ideation session was created for a structured process in which a mentor can guide participants through exercises to come up with ideas for the situation they want to solve or the product they want to develop. The workshop was a hands-on, activity-based session built around the Design Thinking process. The session mainly focused on:

- Innovation methodology, framework & building on skills and tools.
- Brain storming and ideation sessions.
- Identifying Problems having business potential.
- How to conceive the idea, what are the best practices and how to build a good team?



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#### **My Story - Motivational Session by Successful Innovators**

## 20<sup>th</sup> October 2021

**Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram** organized a **Motivational Session** by Successful Innovator on 20<sup>th</sup> **October 2021**. Ms. Vertika Shukla was the eminent speaker of the session and shared her success journey with the students. 152 students attended the session.

She is currently working as a Product Manager at Internshala. She is working on building a product to provide high quality, economical, online learning experience to students. Earlier she has worked for SHEROES. As a community manager she has led 100,000 + 'Women in Tech'. As a Program Manager she has launched campus initiatives for "women in tech" covering 45 colleges in India, thereby selecting and providing the selected students with learning and networking opportunities to enhance their learning. This talk with industrial expert helped students a lot. It gives them an exposure to working of industry with all the present requirements and requires innovations.





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#### Session on Achieving Problem -Solution Fit & Product -Market Fit

## **19th October 2021**

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a session on "Achieving Problem-Solution Fit & Product-Market Fit" on 19thOctober 2021. The aim of the session was to enlighten the students about the process of innovation development to augment the start-ups and entrepreneurial ventures. 53 students attended the session.



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## Workshop on Entrepreneurship and Innovation as Career Opportunity

## **<u>19<sup>th</sup> October 2021</u>**

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a workshop on "**Entrepreneurship and Innovation as a Career Opportunity**" on 19<sup>th</sup> October 2021. 180 students attended the workshop. The eminent speaker of the workshop was Mr. Sachin. He is currently working for Apple as Cyber Security Manager. He worked as Cyber Security Analyst for the same Organization. He worked as Network Engineer for Samsung between 2016 to 2017. His certifications include: CEH (Certified ethical hacker), CPT (Certified Pen tester) – both from Lucideus, Certified Penetration professional, Advanced penetration testing, Certified security Analyst – (all three from EC council India) and Certified network defender. As students were entering a new growth phase of their life, his motivational speech is very timely.

The workshop was organized to inspire B.Tech students to explore the exciting world of startups and innovation-driven careers. The session aimed to shift the mindset of students from being job-seekers to becoming job-creators by showcasing how entrepreneurship can be a viable and rewarding career path. Speakers from various domains, including successful entrepreneurs, startup mentors, and industry experts, shared their journeys, challenges, and strategies that helped them turn innovative ideas into thriving businesses.

The workshop covered key topics such as identifying market gaps, building innovative solutions, validating business ideas, and leveraging startup ecosystems and government support schemes like Startup India. Students were encouraged to think creatively, take calculated risks, and develop a problem-solving approach. Interactive activities and group discussions allowed participants to brainstorm ideas and understand the initial steps involved in launching a startup. The session successfully fostered a spirit of innovation and motivated students to consider entrepreneurship as a meaningful way to contribute to society and economic growth.



## Motivational Session My Story "2 HOURS to COMMIT"

#### 18th October 2021

Google Developer Student Club and IIC Dronacharya College of Engineering, Gurugram organized a motivational session on "My Story 2 hours to Commit" on 18<sup>th</sup> October 2021. Mr. Akashdeep Bhagat (GitHub Campus Expert, Community Specialist at Unacademy) and Ms. Shrankhla Srivastava (GitHub Campus Expert Intern at IIT Roorkee) were the speaker of the session.

Speakers started the session by stating impressive, yet important facts about their journey & growth so far. They gave an insight into some common misbeliefs that budding entrepreneurs have about initiating their projects and start-up ideas especially beginning one in India. They also enlightened the students about the opportunities and challenges Covid-19 has created. They encouraged the students to follow their dreams of building their own start-ups by saying **"one should not be afraid in taking the first step towards their goal"**. Speaker also guided students about business management and planning.

The session ended with a Q&A session, giving the participants opportunity to clarify their doubts about entrepreneurship. The session was quite interactive.



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## Webinar on Impact of Entrepreneurship on Pre and Post Covid – 19 Pandemic

## 15<sup>th</sup> September 2021

The Institution's Innovation Council (IIC) of Dronacharya College of Engineering (DCE) conducted a webinar on "Impact of Entrepreneurship on Pre and Post Covid–19 Pandemic" on 15th September 2021. The session aimed to provide insights into how entrepreneurial dynamics evolved before, during, and after the Covid-19 pandemic.

The webinar was attended by **28 students** from various departments who were eager to understand the shifting landscape of innovation and enterprise. The session was delivered by Ms. Ashima Mehta (Faculty, DCE) who shed light on the challenges, transformations, and opportunities that emerged from the pandemic era.

Highlights of the session included:

- Contrasts between pre-Covid and post-Covid business environments
- Rise of digital-first startups and innovative pivoting strategies
- Consumer behavior shifts and new market demands
- Resilience and adaptability as key entrepreneurial traits
- Government support schemes and post-pandemic recovery frameworks

The speaker emphasized how the pandemic catalyzed innovation, digitalization, and the need for sustainable and socially responsible business models. Real-world examples of startups that thrived during the crisis were also discussed to inspire participants.

An engaging Q&A session followed, with students seeking advice on launching ventures in the current economic climate. The event concluded with a vote of thanks, recognizing the speaker's valuable input and the students' active involvement.

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## Seminar on GST Insights for Entrepreneurship

## 4<sup>th</sup> September 2021

The Institution's Innovation Council (IIC) of Dronacharya College of Engineering (DCE) organized a seminar on "GST Insights for Entrepreneurship" on 4th September 2021. The event was aimed at introducing students to the key aspects of the Goods and Services Tax (GST) system and its importance in building and running legally compliant business ventures.

A total of **37 students** from various departments participated in the session. The seminar was led by Mr. Lakhan Singh, an experienced tax consultant and startup advisor, who offered practical guidance on GST structure, registration, filing processes, and the role of GST in entrepreneurial planning.

Topics covered included:

- Basics of GST and its implementation in India
- Registration procedures for new businesses
- Invoicing, billing, and return filing norms
- Input Tax Credit (ITC) and its business impact
- GST tools and portals for entrepreneurs

The seminar emphasized the relevance of tax knowledge in entrepreneurship, especially for young innovators looking to establish startups or freelance businesses. The speaker also discussed how compliance with GST regulations enhances credibility and ease of doing business.

The session concluded with an interactive Q&A, where students actively sought clarity on GST-related concerns in their startup ideas. The event wrapped up with a vote of thanks by Prof. (Dr.) Isha Malhotra (Principal, DCE) to the speaker for sharing valuable insights and to the students for their active participation.





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# <u>Academic Year 2021-22</u> <u>Workshops/seminars/conferences including programs</u> <u>conducted on IPR</u>

#### ONE DAY EVENT ON "NATIONAL IP AWARENESS MISSION"

#### 29th April 2022

One day event on "National IP Awareness Mission" was organized by Dronacharya College of Engineering, Gurugram. This event was being celebrated on World IP Day during the IP Literacy week celebration under Kalam Program for Intellectual Property Literacy and Awareness Campaign (KAPILA). This mission of this event was to provide awareness and benefits of Intellectual property and its Rights to Students and Faculty members of the colleges. More than 380 Participants attended the event that included faculty members, staff and students of the College.

The main objective of the session was to provide awareness on intellectual property and its rights to the students of colleges/Universities and to inculcate the spirit of creativity and innovation to students of higher education.

The inaugural ceremony of the event commenced with the lighting of lamp by **Dr.B.M.K Prasad** (Director, DCE, Gurgaon), **Mr. Surajit Paul** (Examiner of Patent Designs of IPO), Prof.Yashvardhan Soni (Academic Administrator), **Prof. Dimple Saproo** (Single Point of Contact, SPOC) and Dr. Seema (Event Coordinator) and HOD's of various department. The program was followed by Saraswati-Vandana.

Dr. Seema welcomed esteemed resource person and all dignitaries and the participants.

**Dr. B.M.K Prasad** (Director, DCE, Gurgaon) in his address, briefed the importance of IPR, enlightening the students with the purpose and importance of the Patents and wished for the success of the event .

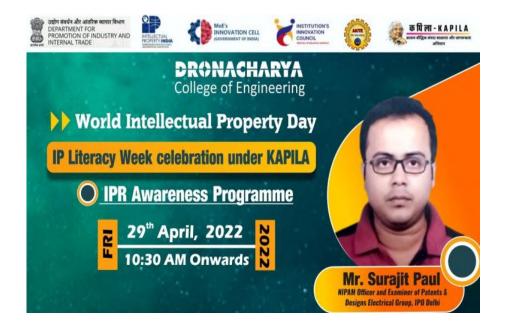
The program was followed by technical session taken by Mr. Surajit Paul (Examiner of Patent Designs of Intellectual Property Office (IPO) Delhi, Ministry of Commerce and Industry, Govt. of India)

He gave a brief introduction on IPR and discussed it importance. He explained different types of IP in detail with examples (Patents, Designs, Trade Marks, Geographical Indications, Copyrights, and Semiconductor Integrated Circuits Layout – Designs (SCILD). The talk comprised the every information of the different rights, terms, criterion, filing process, fees, and basic timelines related to the IPR. He also discussed the recent initiatives taken by the Govt. of India to promote IPR in the Country. He emphasized the significance of the role of a strong IPR ecosystem in the development of a country and how IPR is an essential tool for the IP holder to become a "Job giver rather than job seeker".

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After technical session, the video of **Dr. Mohit Gambhir, Director of Ministry of Education's Innovation Cell (MIC)** was shared among the participants, to highlight the funding opportunities for patent through KAPILA scheme.

The event ended with the vote of thanks by Mrs. Dimple Saproo (SPOC). Overall, the event was interactive and speaker was able to ignite and inspire participants of the institute to innovate and protect their creations.





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#### **IPR Awareness Program**

## 28<sup>th</sup> January 2022

Intellectual Property plays a key role in gaining advantage for achieving higher economic growth in a market driven economy. To promote the awareness of Intellectual Property Rights (IPRs) and to encourage innovation across various disciples, DCE organized "One day Awareness Workshop on Intellectual Property Rights – 2022" on 28th January 2022. This workshop covers basics & fundamentals of IPR, innovation and creativity. Contents of the Workshop:

• Overview on Intellectual Property Rights including Patents, Industrial Designs, Copyrights, Trademarks and Geographical Indications etc,

• How to Convert the Research/Project works into Patents.

• Online training & demonstration on Patent Search for innovation (using free and paid search databases).

- Guidelines for Establishment of IPR cell in the Universities /Colleges/Industries.
- India & International Patents Procedure



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## Webinar on "Application of IPR in Various Sectors"

## 22nd December 2021

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a webinar titled **"Application of Intellectual Property Rights** (**IPR**) **in Various Sectors"** on 22nd December 2021. The session aimed to raise awareness and enhance understanding of the growing significance of IPR in today's innovation-driven economy. The webinar brought together students, faculty members, and professionals to explore how Intellectual Property can be strategically used to protect innovations and encourage creativity across different industries.

The keynote speaker for the event was Prof. Dimple Saproo, an expert in IPR and patent law, who elaborated on the practical implications of IPR in sectors such as pharmaceuticals, IT, agriculture, manufacturing, and design. The speaker highlighted real-world case studies to illustrate how businesses leverage IPR for competitive advantage, emphasizing the importance of patents, copyrights, trademarks, and industrial designs.

Participants were introduced to the basics of IPR, the processes of filing and safeguarding intellectual property, and the role of IPR in promoting entrepreneurship and research. The session also touched upon the challenges and opportunities in the Indian IPR ecosystem and recent government initiatives to promote innovation and IP awareness.

The interactive Q&A session provided attendees an opportunity to clarify their doubts and engage with the speaker on current trends and career prospects in IPR.

The webinar concluded with a vote of thanks to the guest speaker and participants. It was a valuable and insightful session that encouraged the academic community to integrate IPR knowledge into research, development, and industry collaborations.



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## Seminar on "Navigating the Patent Filing Process"

## 12th December 2021

The Institution's Innovation Council (IIC) of Dronacharya College of Engineering, Gurugram organized an insightful seminar on "Navigating the Patent Filing Process" on 12th December 2021. The session was designed to enhance awareness and understanding among students, faculty, and aspiring innovators regarding the procedures and significance of patent filing in the innovation ecosystem. 51 students attended the seminar.

The seminar was led by Dr. Neha Chauhan (Faculty, DCE), who provided a comprehensive overview of the Indian patent system. The speaker elaborated on various stages of the patent lifecycle, including idea evaluation, prior art search, drafting, filing, prosecution, and grant procedures.

Participants were introduced to key aspects such as the types of patents, criteria for patentability, the difference between provisional and complete specifications, and online filing mechanisms through the Indian Patent Office. Real-life examples and case studies were presented to help participants understand practical challenges and best practices in patent filing.

The interactive session witnessed enthusiastic participation, with students and faculty members engaging in meaningful discussions about protecting their innovations and navigating the legal aspects of intellectual property rights.

The seminar concluded with a vote of thanks to the speaker and attendees. The event proved to be a valuable platform to encourage innovation and strengthen the culture of intellectual property awareness within the academic community.



## Session on - The Role of IP in Startup Success

## **16<sup>th</sup> November 2021**

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a Session on - The Role of IP in Startup Success on 16<sup>th</sup> November 2021. 45 students attended the session.

The session highlighted how startups can gain a competitive edge and build long-term value by strategically protecting their innovations through patents, copyrights, trademarks, and trade secrets. Participants learned how IP not only safeguards ideas but also enhances credibility, attracts investors, and opens doors to partnerships and licensing opportunities.

Experts from the field of Intellectual Property Rights shared real-world examples of startups that leveraged their IP portfolios for growth and sustainability. The session covered the basics of IP registration, enforcement, and commercialization, with special focus on the Indian startup ecosystem. Students were encouraged to consider IP protection early in their innovation process and integrate it into their business planning. The session successfully emphasized that IP is not just a legal formality, but a powerful business tool that can significantly contribute to startup success.





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## Workshop on IPR in Technology & Digital Innovations

## 17<sup>th</sup> August 2021

The Institution's Innovation Council (IIC) of Dronacharya College of Engineering (DCE), Gurugram organized a workshop on "Intellectual Property Rights (IPR) in Technology & Digital Innovations" on 17th August 2021, aimed at equipping students with essential knowledge on protecting technological innovations through IPR.

The workshop was attended by **60 enthusiastic students** from various departments, reflecting a growing interest in understanding the role of IPR in the digital and tech-driven world. The session was led by **Dr. Dimple Saproo**, an expert in patent law and digital innovation protection, who provided in-depth insights into the importance of safeguarding intellectual creations in the era of Industry 4.0.

Key highlights of the workshop included:

- Introduction to different types of IPR relevant to the tech sector
- Patentability criteria for software and digital products
- Case studies of tech startups leveraging IPR for growth
- The process of filing patents and copyrights for digital tools, apps, and algorithms
- Government initiatives supporting tech-based IP filings

The workshop emphasized how IPR can serve as a strategic asset for young innovators, particularly in digital domains such as artificial intelligence, software development, blockchain, and IoT.

The interactive nature of the session encouraged student participation, with several queries and reallife innovation ideas being discussed from an IPR perspective. The event concluded with a vote of thanks and a call to integrate IPR awareness into academic and entrepreneurial pursuits.



# <u>Academic Year 2021-22</u> <u>Workshops/seminars/conferences including programs</u> <u>conducted on Research</u>

## Workshop on "Statistical Tools for Data Analysis in Technical Research"

## 16th April 2022

A workshop on "Statistical Tools for Data Analysis in Technical Research" was organized on 16th April 2022 by IIC Cell of Dronacharya College of Engineering, Gurugram to enhance the research capabilities of B.Tech students by introducing them to key statistical methods and tools used in engineering research. The session aimed to equip participants with practical knowledge of data interpretation, hypothesis testing, correlation, regression, and other statistical techniques essential for analyzing experimental and survey-based research data. 55 students attended the workshop.

Students were given hands-on training using software tools such as **Excel, SPSS, and MATLAB**, allowing them to apply statistical concepts to real-world datasets. Resource persons demonstrated how to select appropriate statistical tests based on research objectives and data types. The workshop emphasized the role of accurate data analysis in drawing valid conclusions and improving the quality of technical research. By the end of the session, participants gained confidence in using statistical tools to support their academic projects, technical papers, and final year theses.



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# Workshop on Developing Startups Using the Business Model Canvas <u>18<sup>th</sup> December 2021</u>

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya College of Engineering, Gurugram organized a session on "Start-up Program-Business Model Canvas (BMC)" on 18<sup>th</sup> December 2021. The session was led by Mr. Dhruv, founder of Instadiet and coordinated by Mrs. Renu, Assistant Professor (CSE). 87 students attended the workshop.

The main objective of the session was to encourage, enlighten and motivate the students to think out of the box and start their own ventures.

**Mr. Dhruv** shared experiences of his whole journey towards a successful entrepreneur and counselled the students on how to start their own start-ups and how to take the first step towards the aim. He guided the students on how to avoid the most common mistakes made by freshers. Along with this Mr. Dhruv informed the students with the mostly used technologies in start -up world.

The session ended with discussions on start-up ideas presented by students, which made them learn their flaws and do some more innovations on their idea.



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## Workshop on "Strategic Innovation through Design and Analytical Thinking" 27th October 2021

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a workshop on "Strategic Innovation through Design and Analytical Thinking" was successfully conducted on 27th October 2021, aimed at equipping B.Tech students with the skills to approach complex problems creatively and analytically. The session introduced participants to the principles of design thinking and critical analysis, emphasizing how these methodologies can drive innovation in engineering and technology. Students explored various stages of the design thinking process—empathize, define, ideate, prototype, and test—through interactive activities and real-world case studies.

Experts from academia and industry shared insights into how strategic thinking and innovation can be integrated into product development and problem-solving. Participants were encouraged to collaborate in teams, apply structured frameworks, and think beyond conventional solutions. The workshop enhanced students' ability to tackle challenges with a user-centric mindset and analytical rigor, preparing them to innovate effectively in both academic projects and future entrepreneurial ventures.

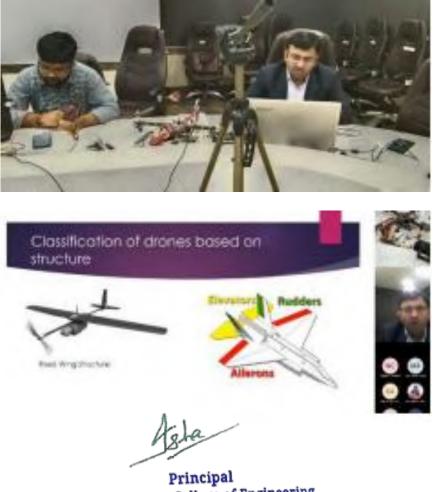


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#### Workshop on drone assembly-QUADCOPTER

## 22<sup>nd</sup> October 2021

**Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram** celebrated National Innovation Day and organized a **Workshop** on Drone Assembly – QUADCOPTER) on **22<sup>nd</sup> October 2021**. Against the backdrop of the ever-increasing use of Unmanned Aerial Vehicles (UAVs), popularly known as drones, for various applications, Innovation cell of DCE, conducted a day-long training programme on drones for students to celebrate National Innovation Day. The focus of the training session was to give students hands-on experience on drone construction and flying, from concept initiation to building a drone. The training session covered introduction and fundamentals of aviation and UAVs, drone electronics, assembly and manual construction, drone prototyping, drone simulator training, stability and control and flight testing. About 150 registered students from various departments participated in the workshop.



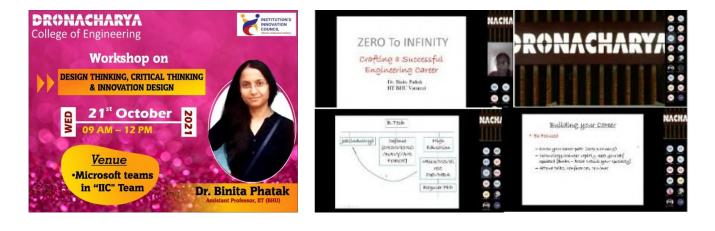
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## Workshop on "Design Thinking, Critical Thinking and Innovation Design"

## **21st October 2021**

The Institution's Innovation Council (IIC) of Dronacharya College of Engineering, Gurugram, under the Ministry of Education (MoE), organized a workshop on "Design Thinking, Critical Thinking and Innovation Design" on 21st October 2021. The event aimed to foster creativity, problem-solving skills, and innovation among students. With the participation of 180 enthusiastic students, the workshop served as a platform to introduce and explore structured methodologies for ideation, innovation, and decision-making.

During the session, students engaged in interactive discussions and hands-on activities designed to sharpen their critical thinking abilities and enhance their understanding of user-centric innovation. Expert speakers provided valuable insights into real-world applications of design thinking in solving complex problems, encouraging students to adopt a mindset of innovation and adaptability. The workshop successfully inspired participants to think beyond conventional approaches and empowered them with tools to develop innovative solutions in their academic and professional pursuits.



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## Online Session on "Emerging Trends of Artificial Intelligence and Machine Learning"

## 20th October 2021

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized an enlightening online session on "Emerging Trends of Artificial Intelligence (AI) and Machine Learning (ML)" on 20th October 2021. The session aimed to familiarize students and faculty members with the rapidly evolving landscape of AI and ML technologies and their applications in various domains.

The session was delivered by Prof. Yashwardhan Soni, who delivered a comprehensive talk covering the latest innovations and research directions in AI and ML. The speaker discussed the transformative impact of AI and ML on industries such as healthcare, finance, education, robotics, and cybersecurity.

Key topics included supervised and unsupervised learning, neural networks, deep learning, natural language processing (NLP), and real-time data analytics. The talk also explored future trends such as explainable AI, ethical AI, and the integration of AI with Internet of Things (IoT) and Big Data.

The session was highly interactive, with enthusiastic participation from students and faculty members. During the Q&A round, attendees discussed career opportunities, project ideas, and ongoing research in AI and ML.

The event concluded with a vote of thanks, appreciating the speaker's insights and the participants' engagement. The session proved to be a valuable platform to inspire budding technologists and researchers to explore AI and ML as dynamic and impactful fields of study and innovation.



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## Workshop on Do's and Don'ts in Research and Technical Publications

## 4<sup>th</sup> October 2021

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a workshop on "**Do's and Don'ts in Research and Technical Publications**" on **4th October 2021** aimed at guiding students, research scholars, and faculty members in maintaining academic integrity and improving the quality of their research publications.

The workshop was facilitated by Dr. Neha Chauhan, a reputed academic and publishing expert, who shared essential guidelines and ethical practices involved in preparing and publishing research papers and technical articles. The session highlighted the importance of originality, clarity, proper referencing, and adherence to publication standards.

Key topics covered included:

- Structuring a research paper effectively
- Common pitfalls to avoid during manuscript preparation
- Understanding plagiarism and its consequences
- Selecting appropriate journals for publication
- Responding to reviewer comments and revising submissions

The speaker also emphasized the role of tools like plagiarism checkers, reference managers (e.g., Mendeley, Zotero), and journal selection portals. Participants actively engaged in the discussion, raising relevant questions about journal indexing, impact factors, and publication ethics.

The workshop concluded with a formal vote of thanks. It was a highly informative and practical session that provided clear guidance to researchers at all levels, encouraging responsible research conduct and quality publishing.



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## Webinar on "Innovative Research Methodologies for Academics"

## 7th August 2021

The Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a webinar on "Innovative Research Methodologies for Academics" on 7th August 2021. The primary objective of the session was to acquaint faculty members, research scholars, and students with modern and effective research methodologies that are essential in the evolving academic landscape.

The keynote speaker for the session was Prof. Dimple Saproo (Faculty, DCE), who shared deep insights into contemporary research practices. The webinar focused on the integration of interdisciplinary approaches, qualitative and quantitative techniques, and the use of advanced digital tools and software to enhance research quality.

Topics covered included formulation of research problems, design of experiments, data collection and analysis strategies, ethical considerations in research, and the importance of publication in highimpact journals. Emphasis was laid on adopting innovative techniques such as action research, design thinking, and mixed methods research to tackle complex academic problems.

Participants actively engaged in the session, and the Q&A segment provided a vibrant platform for intellectual exchange. The event was particularly beneficial for young researchers seeking guidance on research planning, execution, and dissemination.

The webinar concluded with a formal vote of thanks to the speaker and participants. The session was highly informative and left attendees with valuable takeaways to improve the effectiveness and impact of their academic research.



## Academic Year 2020-21

## <u>Workshops/seminars/conferences including programs</u> <u>conducted on Entrepreneurship</u>

# Orientation session for all students and faculties of Institute by Innovation <u>Ambassador</u>

## 29th May 2021

Dronacharya College of Engineering organized an **Orientation Session on Institution Innovation Council** (**IIC**) on **29th May 2021**. The session was conducted by **Prof. Abhinav Panwar**, a renowned academic and innovation mentor. A total of **178 students** from various departments participated in the event with great enthusiasm.

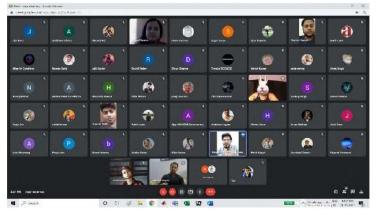
The session aimed to introduce students to the objectives, structure, and activities of the Institution Innovation Council, as mandated by the **Ministry of Education's Innovation Cell (MIC), Government of India**. Prof. Panwar explained the vision behind IIC — fostering a culture of innovation, entrepreneurship, and start-up ecosystems within higher educational institutions.

He elaborated on the roles and responsibilities of students and faculty under IIC and highlighted various innovation-related activities, including hackathons, idea competitions, mentorship programs, and exposure visits to incubation centers.

Prof. Panwar also shared success stories of young innovators and encouraged students to actively engage in IIC activities to turn their creative ideas into viable solutions. The interactive session allowed students to raise queries and gain clarity on how to participate in innovation challenges and national-level competitions. Educational institutes have become major springboards for startup launches and innovation.

To encourage startups and help guide our student entrepreneurs the Institution's Innovation Council (IIC) organized this orientation. Prof. Panwar (innovation ambassador) was the speaker for the session. The aim of the session was to introduce the basic framework of IIC its importance for faculty and students to help kick-start their entrepreneurial projects.

The session concluded on a motivational note, inspiring students to contribute to India's innovation-driven future through active involvement in institutional innovation initiatives.



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## Webinar on Creativity, Innovation and Entrepreneurship

## 19th April 2021

Dronacharya College of Engineering, Gurugram, in collaboration with the **Entrepreneurship Development Institute of India (EDII), Ahmedabad**, organized an insightful **webinar on "Creativity, Innovation and Entrepreneurship"** on **19th April 2021**. The session aimed to inspire students to think creatively, nurture innovative ideas, and develop an entrepreneurial mindset.

The keynote speakers for the session were **Prof. (Dr.) Pankaj Bharti, Prof. (Dr.) Lalit Sharma**, and **Prof. (Dr.) Baishali Mitra** from EDII, Ahmedabad—renowned experts in the field of entrepreneurship and innovation. They emphasized the critical role creativity plays in solving real-world problems and how innovation leads to value creation.

The speakers discussed the entrepreneurial process, from ideation to execution, and provided guidance on identifying market opportunities, building sustainable business models, and accessing funding. Through engaging examples and case studies, they highlighted how young minds can transform ideas into successful ventures.

The interactive nature of the webinar encouraged students to ask questions, share ideas, and reflect on their own entrepreneurial aspirations. The session successfully ignited curiosity and motivated participants to explore the world of entrepreneurship with confidence and purpose.

Overall, the webinar served as a valuable learning platform for students interested in creativitydriven innovation and start-up development.



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## Session on Lean Start-up Methodology and MVP Development 17th April 2021

The Entrepreneurship Development Cell in collaboration with the Institution's Innovation Council (IIC) at Dronacharya College of Engineering, Gurugram, under the Ministry of Education's initiative, organized a session on "Lean Start-up & Minimum Viable Product/Business" on 17th April 2021.

This session supported the national vision of encouraging students to pursue entrepreneurship and contribute to job creation rather than seeking employment.

The speaker, **Dr. Shipra Arora**, shared her expertise on the concept of lean start-ups, describing it as a systematic and experimental approach to building new ventures. She emphasized that this model allows entrepreneurs to test their ideas and evolve their products effectively.

Dr. Arora elaborated on the key components of the lean start-up framework, including **Proof of Concept (PoC)**, **Minimum Viable Product (MVP)**, and **Minimum Marketable Product (MMP)**, using simple and relatable examples like a pizza chain. She also provided a detailed explanation of the **Business Model Canvas**, guiding students on how to structure and validate their business ideas.

The session ended with an interactive Q&A, where students posed thoughtful questions. **Mrs. Pooja Sharma**, event coordinator, concluded the session with a formal **vote of thanks** to the speaker for her valuable insights.



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#### <u>Webinar on National Education Policy (with a focus on Innovation and</u> <u>Entrepreneurship)</u>

#### 13th April 2021

Institution's Innovation Council (IIC) of Dronacharya College of Engineering, Gurugram in association with AICTE organized the webinar on National Education Policy (with a focus on Innovation and entrepreneurship) on 13th April 2021. Ms. Pooja Sharma (Assistant Professor), DCE Gurugram was the coordinator of the webinar. Prof. Dr. S. Chatterjee (Former Professor and HOD of EEE in NITTTR Chandigarh) was the speaker illuminated with a very informative proclamation on National Education Policy. 181 students and Faculty members attended the webinar.

The main objective of the webinar was:

- 1. Covering major highlights of NEP important for faculty and students.
- 2. The Innovation and entrepreneurship part of NEP

Dr. Chatterjee explained how this New Education Policy with keep pace and plug gaps in the 34 years old education policy of India. Further he discussed this new policy will recognize, identify and foster the unique capabilities of each student, by sensitizing teachers as well as parents to promote each student's holistic development in both academic and non-academic spheres.

He also explained this new policy also aims to create new possibilities and making it industry oriented with emphasis on entrepreneurship. This policy will aspire our coming generations to be more imaginative, innovative, ingenious, proactive, pioneering, prospect oriented.

Later students have an engaging discussion with Dr. Chatterjee. Students appreciated the features in the policy.





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# Session/ Panel discussion with innovation and Startup Ecosystem Enablers from the region/state/national level

#### <u>10th April 2021</u>

**Dronacharya College of Engineering** organized an engaging **Panel Discussion with Innovation and Startup Ecosystem Enablers** at the regional, state, and national levels on **10th April 2021.** The session was attended by **150 enthusiastic students** from various departments, keen to learn about the entrepreneurial landscape in India.

The distinguished panel included **Sh. Kamaljeet**, a startup mentor and ecosystem facilitator; **Prof. Sanjay Vohra**, an academic expert in innovation and entrepreneurship; and **CA Anshul Singhal**, a financial advisor and startup consultant. The panelists shared their expertise and experiences on nurturing innovative ideas, building scalable startups, and navigating challenges in the entrepreneurial journey.

Swadeshi Startup is a leading Social Community Group to provide Help & Support to 'New & Budding Startups and Entrepreneurs' who were willing to do something with new Creativity, Innovations, Idea valuation & Addition of techniques in exiting Traditional Enterprises.

The session focused on topics such as the role of incubators, funding opportunities, government support schemes, and the importance of building a strong business model. The panel also emphasized the value of networking, collaboration, and mentorship in the startup ecosystem.

Students actively interacted with the speakers, asking insightful questions and receiving practical advice on turning ideas into viable ventures. The discussion inspired attendees to think innovatively and consider entrepreneurship as a career path.

The session proved to be a highly informative and motivational experience, promoting a culture of innovation and startup thinking among students.

This workshop was growth-focused, practical, and empowering. It lays out and demystifies the most effective path to startup success. It explains step-by-step how to get from concept to launch. It helped students decide what legal form their business should take, and how to establish the company. It shows them how to avoid the common pitfalls of team selection and investor relationships, and explains the different ways of funding their business. It reveals powerful ways of exploiting free or low-cost tools and platforms for growth hacking, marketing and sales.

And it provides them, step by step, the methodologies and ground rules for success in rapidly monetizing their business. Students left session equipped with a set of tools, hacks, strategies

and tactics, inspiring examples, and guidelines for defining, creating and growth hacking their new business. A Signing Ceremony Between Dronacharya College of Engineering & Swadeshi Startup was also conducted on 19th March 2021. This MoU has been established with the intended mission of promoting and strengthening the startup ecosystem in order to fulfill the vision of 'Aatmnirbhar Bharat' and 'Vocal for Local'. Promoting the spirit of entrepreneurship and being job providers rather than being job seekers, amongst the students and alumni of the

College.



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## Session on Prototype Validation - Converting Prototype into a Start-up

## 3rd March 2021

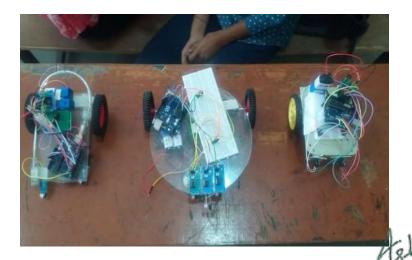
Dronacharya College of Engineering organized an informative and practical session on "**Prototype Validation** – **Converting Prototype into a Start-up**" on **3rd March 2021**. The session was conducted by **Prof. Krishnanu Kundu**, a renowned academician and innovation expert. A total of **123 students** attended the session with great interest and enthusiasm.

The objective of the session was to guide students through the critical process of validating a prototype and transitioning it into a successful start-up. Prof. Kundu discussed the importance of market research, user feedback, and iterative design in refining a prototype. He explained the key steps involved in prototype testing, customer discovery, and establishing product-market fit.

The speaker also highlighted strategies for protecting intellectual property, securing early-stage funding, and building a minimum viable product (MVP). Real-life case studies and examples were shared to help students understand how innovative ideas can be transformed into scalable business models.

The session was highly interactive, and students actively participated in Q&A discussions, gaining valuable insights on entrepreneurship and product development. Overall, the event provided a strong foundation for aspiring innovators to take their ideas forward and explore start-up opportunities confidently.

The Arduino family of microcontrollers and easy-to assemble components is a valuable tool for exploring and evaluating hardware product designs. Rapid, incremental prototypes can help improve outcomes and reduce cost and time in the design process. Prof. Krishanu begins by providing an overview of the prototype development process, highlighting both best practices and potential pitfalls. He then steps through how to develop and refine a proof-of-concept prototype, introducing relevant concepts and techniques along the way. Upon wrapping up this course, students were ready to tackle their own hardware prototyping using Arduino.



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## <u>Mentorship Session for Innovators (or) Student Entrepreneurs through experts</u> and (or) Innovation Ambassadors/Innovation

## 27th February 2021

Dronacharya College of Engineering organized a **Mentorship Session for Innovators and Student Entrepreneurs** on **27th February 2021**. The session was conducted by **Prof. Amar Saraswat**, an esteemed **Innovation Ambassador**, under the Institution's Innovation Council (IIC) framework. The objective was to guide and inspire budding innovators and entrepreneurs on their journey from ideas to implementation.

The session was attended by **220 students** from various departments, reflecting a strong interest in innovation and entrepreneurship. Prof. Saraswat shared valuable insights on identifying real-world problems, building creative solutions, and developing a sustainable innovation mindset. He discussed the key elements of startup development, including ideation, validation, market research, and funding opportunities.

Through interactive discussions and live examples, students were encouraged to think innovatively and explore entrepreneurial opportunities in their respective domains. The session also highlighted government initiatives and support systems available for student innovators.

The mentorship session proved to be highly motivational and informative, encouraging students to nurture their ideas and contribute meaningfully to the innovation ecosystem.

The session also focused on how student innovators can identify real-world challenges and build sustainable solutions. Prof. Saraswat provided guidance on structuring startup ideas, building effective teams, and navigating early-stage challenges. He also highlighted various government initiatives, funding opportunities, and support systems available through the Innovation Cell and Startup India.

Students actively engaged with the expert during the interactive Q&A round, seeking clarity on startup execution, market research, and intellectual property rights.

The session proved to be highly motivating and informative, inspiring students to explore entrepreneurship as a viable career path and contribute to the innovation ecosystem.



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## Session on "Ideation to Execution: The Start-up Journey"

## 22nd February 2021

Dronacharya College of Engineering organized an engaging session on **"Ideation to Execution: The Start-up Journey"** on **22nd February 2021**. The session aimed to guide students through the critical phases of building a start-up—from developing an idea to turning it into a viable business model. A total of **140 students** participated with great enthusiasm.

The speaker addressed the process of identifying problems, brainstorming innovative solutions, and evaluating the feasibility of ideas. Students were introduced to concepts such as **Minimum Viable Product (MVP)**, customer validation, and business model development. The importance of market research, understanding user needs, and financial planning were emphasized throughout the session.

The speaker also shared real-life experiences and examples of successful start-ups that emerged from simple ideas and grew into sustainable ventures. The journey from ideation to execution was illustrated with key strategies and tools aspiring entrepreneurs can use to navigate challenges.

The session concluded with an interactive Q&A, where students actively raised queries related to funding, mentorship, and incubator support. Overall, the event served as a practical and motivational learning experience, encouraging students to take the first step toward entrepreneurship with confidence and clarity.



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#### Session on How to plan for Start-up and legal Ethical Steps

#### 20th February 2021

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized an Online Session on "Session on How to plan for Start-up and legal Ethical Steps" was conducted on 20th February 2021. The event was coordinated by Mrs. Pooja Sharma (EEE Department). Ms. Priyanka Madnani (Founder & CEO, Easy to Pitch) was the guest speaker of the seminar and the session was attended by 127 students from various disciplines.

The guest speaker for the session was **Ms. Priyanka Madnani**, Founder & CEO of **Easy to Pitch**, a renowned entrepreneur and mentor in the Indian startup ecosystem. She shared her entrepreneurial journey and provided valuable guidance on how aspiring entrepreneurs can convert their ideas into successful ventures.

Ms. Madnani emphasized the importance of understanding legal and ethical frameworks before launching a start-up. Key topics covered included choosing the right business structure, intellectual property rights, funding strategies, compliance requirements, and ethical responsibilities of entrepreneurs. She also explained how to effectively pitch ideas to investors and build a strong startup team.

The session concluded with an interactive Q&A round, where students clarified their doubts about start-up formation, legal obligations, and scalability. The session proved to be highly beneficial and inspiring for budding entrepreneurs aiming to establish a successful and responsible business.

This workshop was growth-focused, practical, and empowering. It lays out and demystifies the most effective path to startup success. It explains step-by-step how to get from concept to launch. It helped students decide what legal form their business should take, and how to establish the company.

It shows them how to avoid the common pitfalls of team selection and investor relationships, and explains the different ways of funding their business. It reveals powerful ways of exploiting free or low-cost tools and platforms for growth hacking, marketing and sales.

And it provides them, step by step, the methodologies and ground rules for success in rapidly monetizing their business. Students left session equipped with a set of tools, hacks, strategies

and tactics, inspiring examples, and guidelines for defining, creating and growth hacking their new business.



**Video Link:** https://ggnindiadronacharyainfo.sharepoint.com/sites/InnovationCouncil/Sh ared%20Documents/General/Recordings/How%20to%20plan%20for%20start%20up%20%26%20le gal%20%26%20Ethical%20steps-20210220\_111132-Meeting%20Recording.mp4?web=1

#### Three days' Workshop on "Rural Entrepreneurship and Rural Start-Ups"

#### 17th - 19th February 2021

**Department of Rural Development at NITTTR Chandigarh** organised a three-day workshop on "**Rural Entrepreneurship and Rural Start-Ups.**" from the **17th to 19th of February 2021.** Three faculty members **Ms. Cheela Annapurna Mounica**(Civil), **Ms. Pooja Jain**(CSE) and **Mr. Krishnu Kundu**(ECE) of **Dronacharya College of Engineering, Gurugram** attended the worksop.

#### <u>Day 1</u>

**Dr. U. N. Roy, Professor and Head of the Department of Rural Development**, delivered the inaugural address. **Dr. Roy** stated that all technical and higher education institutions, as well as all other colleges and polytechnics affiliated with central universities, as well as the UGC, AICTE, ICAR, and ICMR, would work together to realize the mission. Each participating institute (PI) has created a cluster of five villages in its immediate vicinity, with a variety of technical interventions tailored to local needs.

**Dr. U. N. Roy** spoke about the Potential of Rural Entrepreneurship and Rural Development in the second session. He went on to talk about the importance of rural entrepreneurship in creating jobs, and income gaps between rural and urban areas, and promoting sustainable regional and economic growth in rural areas. He also explained the advantages of Rural Industrial Projects and problems of rural entrepreneurship.

In the third session, **Professor J. S. Saini** spoke about the job situation in India's various sectors and potential initiatives in MSMEs to help the country's economy. The MSME sector is critical for job creation and the continuation of the economic recovery. The MSME sector has also been given collateral-free credit in addition to the jobs incentive.

#### <u>Day 2</u>

**Professor Jagveer Singh Rawat HAU, Hisar**, delivered the first session on the second day. Under the heading Dairy Farming in India: Effective Case Studies, he shared his thoughts on rural start-up. To meet rising demand, the Indian dairy industry's future depends on increased production. However, animal health must also be taken into consideration.

**Dr. H. S. Jwanda, Principal ITI, GNDP Ludhiana**, spoke about Skills Training and Placement of Punjabi Rural Youth under the CDTP Scheme and Other Government Schemes in the second session. He told each identified Polytechnic shall create Extension Centres in the nodal villages so that each centre covers at least a cluster of villages in its vicinity in order to impart skill training and accomplish ground level physical delivery of new technologies at the doorsteps of the rural people. Under the scheme, these centres will serve as an extension arm of the polytechnic, providing capacity training, repair and maintenance services, as well as common six facilities for group businesses, knowledge exchange, and renting technical facilities from the polytechnics. Extension Centres should be developed with the participation of NGOs, voluntary organisations, technical experts, and village agencies.

**Professor Joginder Singh Rohru** spoke about organic apple cultivation and marketing in the third session. He expressed his belief that the steady rise in market demand for organic goods over the last decade should be regarded as a promising opportunity for organic producers worldwide. Improved pest control practises, the use of disease-resistant cultivars, and organic-focused marketing schemes have all been linked to increased organic fruit production, according to him.

#### <u>Day 3</u>

On the last day, the first session was delivered by **Professor Hardip Singh Sura, Bugana, Hisar.** He deeply focused on Farming Techniques and Agri–Inputs Production and Marketing: Experience of an Agri-Entrepreneurship. He told entrepreneurship is one of the key drivers for economic development increases. Agri-entrepreneurship in common language can be defined as sustainable, community-oriented, directly-marketed agriculture. It is beneficial combination of agriculture and entrepreneurship and convert your farm into an agribusiness. This association of agriculture and business promotes agri-entrepreneurship is similar with entrepreneurship in agriculture and describes agribusiness establishment in agriculture and allied sector. The next session was delivered by **Dr. Sarita Mehra** and **Dr. S. P. Mehra, RSNH, Bharatpur**. They discussed Rural Start Ups for the Empowerment of Rural women: An Experiment of RSNH, Bharatpur. They explained training and mentoring vulnerable women and their families in rural communities with basic Entrepreneurship and Small-scale business startups skills. Then there was the interaction with UBA coordinators Dr. U. N. Roy and Dr. Poonam Syal, Associate Professor, Department of Rural Development.

All participants found the workshop to be very insightful and educational.







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#### <u>Workshop on Prototype/Process Design and Development - Prototyping using</u> <u>Arduino</u>

#### **30th January 2021**

IIC and MoE's Innovation Cell Dronacharya College of Engineering, Gurugram, organized a workshop on "Prototype/Process Design and Development – Prototyping using Arduino" on 30th January 2021. The workshop was conducted by Prof. Krishanu Kundu, a faculty member from the ECE Department. A total of 175 students from various departments attended the session.

The primary objective of the workshop was to introduce students to the design and development of prototypes using Arduino, a popular open-source electronics platform. Prof. Kundu provided a comprehensive overview of how Arduino can be utilized to create functional prototypes and emphasized the importance of prototyping in the development of innovative projects.

The session focused on explaining the fundamentals of Arduino, its applications in real-world scenarios, and the process of building a working prototype using this technology. Students were given insights into the various components and programming involved in Arduino-based prototypes, enabling them to gain practical knowledge and hands-on experience.

By the end of the workshop, students gained a clearer understanding of how to approach prototype development using Arduino, equipping them with the skills necessary to apply these techniques to their own innovative projects and ideas.



#### **Mentorship Session for Innovation & Entrepreneurship**

#### **20th January 2021**

**Dronacharya College of Engineering, Gurugram** under the flagship of **MHRD Innovation Cell**, organized a mentorship session on "**Innovation & Entrepreneurship**" on **20th January 2020** at college campus. Students from CSE, IT, ECE, ME Department participated in the session.

The objective of the session was to discuss entrepreneurship, its process and benefits, The welcome speech was given by student **Mr. Lakshay Kumar.** Then **Mr. Amar Saraswat**, **Assistant Professor. Prof, IT Department**, discussed the barriers of entrepreneurship which included Entry, Exit and Growth Barriers. He also discussed about the importance for creating large number of start-ups for the economy of India.

**Mr. Saraswat** also explained about the basic difference between Enterprise, Entrepreneur and Entrepreneurship and how to create value and understand opportunity. He said, an entrepreneur is opportunity obsessed with a goal of creating value without regard to resources currently controlled. Next, **Mr. Saraswat** discussed about key component of Enterprise Creation Process. He also explained augmenting entrepreneurial supply through inducement, policy interventions, training

Then, **Mr. Saraswat** engaged the participants into various activities such as 30 Circle Exercise, 30 Square Exercise and conducted a Torrence Test for Creativity. He also discussed Activity Learning Mechanism and its approaches which include Trait based approach, process based approach, and method / skill based approach.

**Mr. Amar Saraswat** also discussed in detail seven keys to competitive business strategy, which includes analyzing strength and weakness, assessing the opportunity, determining the core values, defining end state goals, assessing related risks, implementing the strategy, and evaluating the business strategy.

In the end there was a question and answer session were students cleared their doubts.

interventions, provisioning of business development strategies.



Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

# Workshop on "Entrepreneurship and Innovation as a Career Opportunity"

## 5th January 2021

**Dronacharya College of Engineering** organized an insightful workshop on **"Entrepreneurship and Innovation as a Career Opportunity"**, aimed at inspiring students to explore innovative paths and entrepreneurial ventures on **5th January 2021**. A total of **85 students** from various departments participated with great enthusiasm.

The session focused on cultivating an entrepreneurial mindset among students and highlighting innovation as a key driver in today's dynamic job market. The workshop addressed the fundamentals of entrepreneurship, the qualities of successful entrepreneurs, and the stages of developing a start-up—from idea generation to execution.

Speakers encouraged students to identify real-world problems and turn their solutions into sustainable business models. They also discussed the importance of creativity, risk-taking, and resilience in building a successful entrepreneurial journey.

Students were introduced to government initiatives, funding opportunities, and the support systems available through incubators and innovation cells. Interactive discussions and real-life case studies helped students gain practical understanding and inspiration.

The workshop concluded with a Q&A session, allowing participants to clarify doubts and share their thoughts. Overall, the session served as a motivational platform, encouraging students to view entrepreneurship not just as a career choice, but as a means to contribute meaningfully to society and the economy.



#### **Orientation Session on National Innovation and Start up Policy (NISP)**

#### 28th November 2020

**IIC & MHRD's Innovation Cell Dronacharya College of Engineering, Gurugram,** organized an orientation session on the National Innovation and Startup Policy (NISP) on **28th November 2020.** The session was conducted by **Prof. Shyam Sundar Sharma,** who provided valuable insights into the policy's significance for both faculty and students.

The main focus of the session was to highlight the key aspects of NISP, which aims to foster innovation and entrepreneurship within academic institutions. Prof. Sharma explained the various components of the policy and how it supports the development of a robust innovation ecosystem.

**Prof. Sharma** elaborated on the major provisions of the policy that are crucial for fostering innovation and startup culture, emphasizing the role of institutions in encouraging creativity and entrepreneurial ventures.

The session also focused on the policy's approach to promoting innovation and entrepreneurship among students and faculty. Prof. Sharma discussed the importance of building a culture that nurtures new ideas, supports startups, and provides resources for budding entrepreneurs.

The orientation session provided participants with a deeper understanding of how the National Innovation and Startup Policy can be leveraged to create opportunities for innovation and startup growth in academic institutions. By the end of the session, attendees gained a clearer perspective on how to engage with NISP to drive change and develop entrepreneurial ventures.





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# Workshop on "Design Thinking, Critical Thinking and Innovation Design"

#### 11th November 2020

**Institution's Innovation Council, Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram** organized a workshop on **"Design Thinking, Critical Thinking and Innovation Design" 11th November 2020. IIC Ambassador, Dr. Pooja Sharma** was the eminent speaker of the workshop. 125 students attended the workshop.

The speaker started the session by highlighting the fact that to carry innovation, critical thinking is a vital parameter. Assumptions must be made and there should be no lacking in the efforts to make the assumptions a reality. He said, the world is becoming more and more digital, it's not the first click that matters, what matters are the actions that needs to be performed afterwards. To make an idea a successful reality, proper implementation of the thoughts is also necessary. Following were the topics that were taught in the session:

- Elements of Design Thinking
- Design Thinking Process
- Problem identification techniques/tools
- Customer journey map
- Empathy map template
- Need of social media
- Prototype techniques/tools
- Ideation techniques/tools

The session also covered how Design Thinking and Critical Thinking abilities are used to produce what customers really want. It also focuses upon delivering tangible and intangible products keeping in mind the feasibility and economical aspect of the product thus produced.



#### **Innovation Ambassador Orientation Session**

#### 7th November 2020

**IIC & MHRD's Innovation Cell Dronacharya College of Engineering, Gurugram,** hosted an "Innovation Ambassador Pitching Workshop & Linkage of Innovators." on **7th November 2020.** The session was led by **Prof. Sunil Bist,** an esteemed Innovation Ambassador, who guided participants through the process of effectively pitching their innovative ideas and linking with other innovators.

The workshop aimed to equip students and faculty with essential skills to present their innovative projects and ideas in a compelling and structured manner. Prof. Bist provided valuable insights into crafting impactful pitches, focusing on how to highlight the core value and potential of an idea to engage and attract stakeholders.

In addition to pitching techniques, the session also focused on fostering connections between innovators. Prof. Bist emphasized the importance of networking and collaboration in the innovation ecosystem, encouraging participants to link with like-minded individuals and teams to enhance the scope and impact of their projects.

The workshop provided a platform for participants to refine their communication skills and build confidence in presenting their ideas. By the end of the session, attendees had a better understanding of how to position their innovations for success and the role of networking in advancing entrepreneurial ventures. The event was instrumental in encouraging collaboration and empowering future innovators to take the next steps in transforming their ideas into tangible solutions.



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# Workshop on Problem Solving and Ideation by IIC & MoE's Innovation Cell 31st October 2020

IIC & MoE's Innovation Cell, Dronacharya College of Engineering, Gurugram, organized a workshop focused on "Problem Solving and Ideation on 31st October 2020" The session, led by Prof. Chandra Shekhar Singh from the ECE Department, provided students with valuable insights into innovation methodologies, frameworks, and the development of essential skills and tools.

The workshop covered key topics such as:

- Brain storming and ideation sessions.
- Identifying Problems having business potential.
- How to conceive the idea, what are the best practices and how to build a good team?

The workshop was a hands-on, activity-based session built around the Design Thinking process.

This interactive, activity-driven workshop was designed around the Design Thinking process, providing participants with practical, hands-on experience to foster creative problem-solving and innovation.

An ideation session is created for a structured process in which a mentor can guide participants through exercises to come up with ideas for the situation they want to solve or the product they want to develop. This workshop is a hands-on, activity-based session built around the Design Thinking process.

The session mainly focused on: Innovation methodology, framework & building on skills and tools. Brain storming and ideation sessions. Identifying Problems having business potential. How to conceive the idea, what are the best practices and how to build a good team?



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#### **My Story - Motivational Session by Successful Entrepreneur/Startup Founder**

#### 26th October 2020

Dronacharya College of Engineering, Gurugram, conducted an inspiring session titled "My Story – Motivational Session by a Successful Entrepreneur" on 26th October 2020. The session was led by Mrs. Sanmeet Kaur, a renowned entrepreneur and motivational speaker. The event saw active participation from 155 students across various departments.

The objective of the session was to ignite the entrepreneurial spirit among students by sharing reallife experiences and insights from the journey of a successful startup founder. Mrs. Kaur captivated the audience with her personal story of challenges, perseverance, and eventual success in the entrepreneurial world.

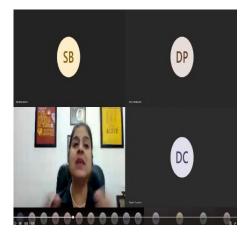
Mrs. Sanmeet Kaur is the best leadership trainer and a motivational speaker and a business coach having more than 19 yrs. of working experience. She is now providing coaching to business owners from the last 6-7 yrs. to help them in their business growth.

She is also engaged in many corporate, management institutes, NGO, governments as well as semi govt. dept. She has been recognized as Fuzia Women Achievers 2020 and also as top women entrepreneur 2020 by great companies. She is recognized as most promising business coaches 2020 by Silicon Indian. She is Certified by Universal Records Forum as a participant of world record.

She discussed the mindset required to start a business, how to handle failures, and the importance of continuous learning and self-belief. Through her journey, students learned the value of resilience, time management, and staying committed to one's goals.

The session also included interactive moments where students asked questions about idea validation, startup funding, and balancing risks. Mrs. Kaur encouraged students to believe in their potential and not be afraid to take bold steps toward innovation.

Overall, the session served as a powerful motivational experience, leaving students inspired to pursue their passions and consider entrepreneurship as a rewarding career path.





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#### **Entrepreneurship and Innovation as Career Opportunity**

#### 24th October 2020

The Institution's Innovation Council (IIC) and MoE's Innovation Cell of Dronacharya College of Engineering, Gurugram conducted an interactive workshop titled "Entrepreneurship and Innovation as a Career Opportunity – Why No Slides Being Used" on 24th October 2020. The session was specially curated for 6th semester students to inspire and educate them about entrepreneurial thinking and innovation in the real world.

The guest speaker, **Mr. Ashish Khurana**, an accomplished professional with a **Master's degree in Business Administration from Boston University's Questrom School of Business**, led the session with a unique and engaging approach—without using any presentation slides. His session focused on creating a more direct and conversational interaction with the participants.

Mr. Khurana emphasized the importance of practical knowledge, creative problem-solving, and a proactive mindset in the entrepreneurial journey. He shared personal insights from his professional experiences and discussed how innovation can be turned into viable business ideas. Students were encouraged to ask questions and engage in open dialogue, making the session both informative and thought-provoking.

The workshop effectively highlighted entrepreneurship as a promising career path, sparking enthusiasm among students to explore and pursue their innovative ideas.



#### <u>Orientation Session on National Education Policy (with a focus on Innovation</u> <u>and entrepreneurship</u>

#### 17th October 2020

Dronacharya College of Engineering organized an **Orientation Session on the National Education Policy (NEP) 2020,** with special emphasis on **Innovation and Entrepreneurship**, on **17th October 2020**. The session was conducted virtually through **Microsoft Teams** and was attended by **135 students** from various departments.

The guest speaker, **Prof. Shyam Sunder Sharma**, delivered an insightful talk covering the key highlights of NEP 2020 that are especially relevant to both faculty members and students. He emphasized the policy's approach to promoting **interdisciplinary learning**, **creativity**, **and critical thinking** in higher education.

A significant portion of the session was dedicated to discussing the **role of innovation and entrepreneurship** in NEP. Prof. Sharma highlighted how NEP envisions the integration of startup culture and innovation-based learning in academic institutions. He stressed the need for stronger **industry-academia collaborations** to promote practical, outcome-based learning.

Following the talk, an engaging interactive discussion was held where students expressed enthusiasm about the policy and its forward-looking reforms. The session successfully deepened students' understanding of NEP 2020 and motivated them to adopt an innovation-driven academic and professional approach.



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# <u>Academic Year 2020-21</u> <u>Workshops/seminars/conferences including programs</u> <u>conducted on Research</u>

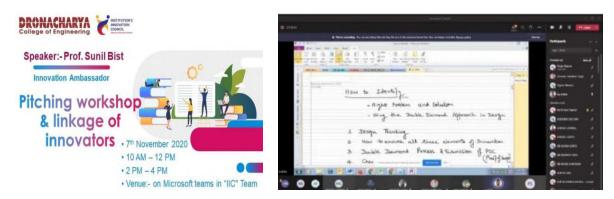
# Innovation Ambassador Pitching Workshop & Linkage of Innovators 7th November 2020

**IIC & MHRD's Innovation Cell Dronacharya College of Engineering, Gurugram,** hosted an "Innovation Ambassador Pitching Workshop & Linkage of Innovators." on **7th November 2020.** The session was led by **Prof. Sunil Bist,** an esteemed Innovation Ambassador, who guided participants through the process of effectively pitching their innovative ideas and linking with other innovators.

The workshop aimed to equip students and faculty with essential skills to present their innovative projects and ideas in a compelling and structured manner. Prof. Bist provided valuable insights into crafting impactful pitches, focusing on how to highlight the core value and potential of an idea to engage and attract stakeholders.

In addition to pitching techniques, the session also focused on fostering connections between innovators. Prof. Bist emphasized the importance of networking and collaboration in the innovation ecosystem, encouraging participants to link with like-minded individuals and teams to enhance the scope and impact of their projects.

The workshop provided a platform for participants to refine their communication skills and build confidence in presenting their ideas. By the end of the session, attendees had a better understanding of how to position their innovations for success and the role of networking in advancing entrepreneurial ventures. The event was instrumental in encouraging collaboration and empowering future innovators to take the next steps in transforming their ideas into tangible solutions.



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# Workshop on "Design Thinking, Critical Thinking, and Innovation Design" 21st November 2020

On 21st November 2020, the IIC & MHRD's Innovation Cell at Dronacharya College of Engineering, Gurugram, organized a workshop focused on "Design Thinking, Critical Thinking, and Innovation Design." The session was conducted by Prof. Chandra Shekhar Singh from the ECE department, who shared his expertise on the essential skills required for innovation and problem-solving.

The workshop covered a range of topics crucial for fostering creative thinking and innovation. Prof. Singh introduced participants to the concept of Design Thinking, emphasizing its significance in addressing complex problems and developing user-centric solutions. He elaborated on how this approach helps in understanding the user's needs, brainstorming potential solutions, and prototyping ideas to create impactful designs.

The session also delved into Critical Thinking and its role in effective problem-solving. Prof. Singh explained how critical thinking skills enable individuals to evaluate ideas logically, analyze issues from multiple perspectives, and make informed decisions. He further explored the psychological principles behind creativity and how understanding these principles can enhance one's ability to come up with innovative ideas.

Additionally, **Prof. Singh** highlighted the connection between creativity, problem-solving, and product performance, showing how these elements work together to drive successful innovations. He stressed that the ability to think critically and creatively is essential for developing products that meet real-world needs and perform well in the market.

By the end of the workshop, participants had a better understanding of the core principles of design thinking and how to apply critical and creative thinking in their innovation process. The session provided students with valuable tools to approach problems in a structured and innovative way, preparing them to tackle challenges effectively and drive future success in their projects.



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# Session on Process of Innovation Development

#### 12th December 2020

**IIC & MoE's Innovation Cell Dronacharya College of Engineering, Gurugram,** organized a session on the "Process of Innovation Development" on **12th December 2020.** The session aimed to educate students on the essential steps involved in developing innovations to support startups and entrepreneurial ventures.

The primary focus of the session was to provide students with a comprehensive understanding of how innovation is developed and the crucial aspects involved in the process.

The session began by explaining the importance of identifying and understanding the problems or topics that need to be addressed. This step is crucial in forming the foundation of any innovative process.

Participants were introduced to the importance of reviewing existing research in the relevant field. This helps in understanding the current state of knowledge and identifying gaps where innovation can create meaningful impact.

The session provided an overview of innovation itself and its relationship with related fields of research. Emphasis was placed on how innovation can be applied to solve real-world problems and contribute to the development of new technologies, products, or services.

This session equipped students with the knowledge of how to approach innovation development effectively, encouraging them to explore new ideas and contribute to the entrepreneurial ecosystem.





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#### **Toycathon 2021**

#### 5th January 2021

Toycathon 2021, a nationwide initiative aimed at promoting indigenous toy-making and innovation in game design, was officially launched on 5th January 2021 at 2 p.m. by Hon'ble Minister of Textiles and Women & Child Development, Smt. Smriti Irani, and Hon'ble Minister of Education, Shri Ramesh Pokhriyal "Nishank', in a press conference.

The event, aligned with the vision of **Atmanirbhar Bharat**, encourages students, teachers, and startups to conceptualize and design toys or games based on **Indian culture**, ethos, history, and values. The idea submission portal was made live the same day at 5 p.m., allowing participants to begin registering and submitting their innovative ideas.

Under the 'Aatma Nirbhar Bharat Abhiyan' initiated by our Hon'ble Prime Minister, Shri. Narendra Modi, Toycathon-2021 is conceived to challenge India's innovative minds to conceptualize novel Toy and Games based on Bharatiya civilization, history, culture, mythology and ethos. Toycathon 2021 is an inter-ministerial initiative organized by Ministry of Education's Innovation Cell with support from All India Council for Technical Education, Ministry of Women and Child Development, Ministry of Commerce and Industry, Ministry of MSME, Ministry of Textiles and Ministry of Information and Broadcasting. Many teams from our institute participated in this event in many categories.

Participants were encouraged to explore the **problem statements listed under the 'Themes' tab** on the official Toycathon website. If they found a problem that matched their creativity, they were required to draft their concept and submit it in the prescribed format. The **last date for idea submission was 31st January 2021**.

At **Dronacharya College of Engineering**, the initiative was actively promoted under the guidance of **Prof. Pooja Sharma**, who mentored students through the registration and submission process. The event fostered a culture of **creativity**, **innovation**, **and entrepreneurship**, empowering youth to contribute to the evolving toy and game industry.



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# National Webinar on Research, Innovation and Ranking <u>11th August 2021</u>

Dronacharya College of Engineering, Gurugram actively participated in the National Webinar on Research, Innovation, and Ranking, organized by the Ministry of Education's Innovation Cell (MIC) as part of the one-year celebration of the National Education Policy (NEP) 2020. The event was held virtually on 11th August 2021 via YouTube from 10:30 AM to 1:30 PM.

The session commenced with addresses by **Dr. Rajkumar Ranjan Singh**, Hon'ble Minister of State for Education and External Affairs (Chief Guest), and **Prof. K. Vijay Raghavan**, Principal Scientific Advisor, Govt. of India (Guest of Honor).

Three impactful panel discussions were conducted:

- Panel 1: Focused on "Ensuring Excellence and Relevance in Research" featuring experts like **Dr. K. Radhakrishnan**, **Prof. Govindan Rangarajan**, and **Dr. Umesh Shaligram**.
- Panel 2: Explored "Building Innovation and Entrepreneurial Ecosystem" with Mr. Deepak Bagla, Dr. Anita Gupta, and Mr. Yashraj Bharadwaj.
- Panel 3: Discussed strategies for HEIs to excel in global rankings with insights from Prof. V. Ramgopal Rao, Ashwin Fernandes, and Prof. C. Raj Kumar.

The event provided valuable insights into aligning higher education with global standards through research, innovation, and strategic planning.



# Workshop on Problem Solving and Ideation by IIC & MoE's Innovation Cell

**31st October 2020** 

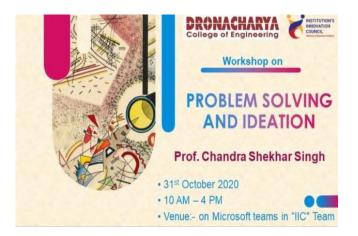
IIC & MoE's Innovation Cell, Dronacharya College of Engineering, Gurugram, organized a workshop focused on "Problem Solving and Ideation on 31st October 2020" The session, led by Prof. Chandra Shekhar Singh from the ECE Department, provided students with valuable insights into innovation methodologies, frameworks, and the development of essential skills and tools.

The workshop covered key topics such as:

- Brain storming and ideation sessions.
- Identifying Problems having business potential.
- How to conceive the idea, what are the best practices and how to build a good team?

The workshop was a hands-on, activity-based session built around the Design Thinking process.

This interactive, activity-driven workshop was designed around the Design Thinking process, providing participants with practical, hands-on experience to foster creative problem-solving and innovation.





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# Workshop on Use of AI Tools in Research and Data Analysis

## 23rd November 2020

Dronacharya College of Engineering, Gurugram organized an insightful **Workshop on the Use of AI Tools in Research and Data Analysis** aimed at equipping students and faculty with modern research methodologies and advanced data analytics techniques.

The workshop focused on the growing significance of **Artificial Intelligence** (**AI**) in enhancing the quality and efficiency of academic and scientific research. Participants were introduced to various **AI-powered tools and platforms** used for literature review, plagiarism detection, data visualization, statistical analysis, and predictive modeling.

The expert resource person demonstrated how tools like **ChatGPT**, **Mendeley**, **Zotero**, **Grammarly**, **IBM Watson**, **Orange**, **and Power BI** can simplify and accelerate the research process. The session also covered real-time examples and case studies to show how AI can assist in **pattern recognition**, **data mining**, **and decision-making**.

The hands-on session allowed participants to explore these tools in practical settings, encouraging interactive learning and problem-solving. The workshop concluded with a Q&A session where participants clarified doubts and shared their experiences.

The event was well-received and proved to be highly beneficial for those involved in academic research, enabling them to integrate AI-driven approaches in their work effectively.



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# Workshop on Formulating Research Problems and Hypotheses

## 30th November 2020

Dronacharya College of Engineering, Gurugram organized a comprehensive workshop on **"Formulating Research Problems and Hypotheses"**, aimed at strengthening the research skills of students and faculty members. The session was designed to guide participants through the initial and most crucial phase of research – identifying a research problem and developing a testable hypothesis.

The expert speaker began the session by explaining the characteristics of a well-defined research problem, highlighting factors such as relevance, clarity, scope, and feasibility. Participants were introduced to various methods of identifying research gaps through literature reviews, observations, and current technological trends.

The workshop further focused on the structure and significance of hypotheses in research. The difference between **null and alternative hypotheses** was clearly explained, and the importance of aligning hypotheses with the overall research objective was emphasized. Practical examples from various engineering domains were presented to demonstrate how a research problem evolves into a meaningful hypothesis.

An interactive segment allowed participants to brainstorm and present their own research ideas, which were reviewed and discussed by the resource person. The workshop concluded with a Q&A session and was highly appreciated by attendees for its practical relevance and academic value.



# Workshop on "The Role of IP in Protecting Innovative Ideas"

#### 11th December 2020

Dronacharya College of Engineering, Gurugram organized a workshop on **"The Role of IP in Protecting Innovative Ideas"** on 11th December 2020. The session aimed to spread awareness about Intellectual Property Rights (IPR) and their critical role in securing and encouraging innovation among young minds. A total of **153 students** from various departments enthusiastically participated in the workshop.

The expert speaker initiated the session by introducing the concept of Intellectual Property (IP) and its various types such as **patents**, **copyrights**, **trademarks**, **and industrial designs**. The importance of IP in academic research, startups, and technological development was highlighted through engaging discussions and real-life examples.

The speaker elaborated on how protecting innovative ideas legally through IP can provide long-term advantages, including recognition, financial gain, and protection from idea theft. The process of filing patents and the essentials of a patentable idea were also explained in detail.

Students actively participated in the Q&A session, asking insightful questions related to patent filing procedures and commercialization of IP. The session concluded with a message encouraging all aspiring innovators to consider IP protection as a fundamental step in their entrepreneurial and research journey.

The workshop was highly appreciated for its practical insights and relevance.

DRONACHARYA College of Engineering	INSTITUTION'S INNOVATION COUNCIL
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Dronacharya College of English Farrukh Nagar, Gurgaon.

## Webinar on Significance of 5G Technology

#### 29th September 2020

Dronacharya College of Engineering, Gurugram conducted a highly informative **webinar on "Significance of 5G Technology"** on 29th September 2020. The event witnessed the active participation of **115 students** from various engineering disciplines.

The webinar was aimed at introducing students to the evolution, capabilities, and future scope of **5G technology** in transforming communication and connectivity. The expert speaker began by presenting a comparative overview of 1G to 4G technologies, laying the foundation for understanding the disruptive potential of 5G.

Key features such as ultra-low latency, enhanced mobile broadband, massive machine-type communications, and network slicing were explained. The session further delved into the applications of 5G in sectors like **smart cities, autonomous vehicles, remote healthcare, Internet of Things (IoT), and Industry 4.0**.

The speaker also addressed the challenges in deploying 5G infrastructure, including spectrum allocation, cost implications, and cybersecurity concerns. A special segment was devoted to discussing India's preparedness and the ongoing developments in the 5G ecosystem.

The webinar concluded with a lively Q&A session where students asked relevant questions, showcasing their curiosity and enthusiasm for emerging technologies. Overall, the session was highly appreciated for providing students with valuable insights into one of the most impactful technological advaements of the decade.

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Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

# Webinar on "Quantitative Research Methods: Tools and Techniques"

# 10th October 2020

Dronacharya College of Engineering, Gurugram organized an insightful **webinar on "Quantitative Research Methods: Tools and Techniques"** on 10th October 2020, aimed at enhancing the research skills of students. A total of **62 students** actively participated in the session, which provided valuable knowledge on the use of quantitative methods in research.

The webinar focused on various quantitative research methods, including **survey research**, **experimental design, and statistical techniques**. The expert speaker elaborated on essential tools and software used in quantitative analysis, such as **SPSS**, **Excel**, **and R**, emphasizing their role in collecting, analyzing, and interpreting numerical data.

Participants were introduced to key concepts like **sampling techniques**, **hypothesis testing**, **data visualization**, and **statistical models**. Practical examples from different fields of engineering were shared to demonstrate how these tools can be applied effectively in research projects.

The session also covered the significance of using reliable data and the challenges researchers face while working with quantitative methods. In the Q&A segment, students had the opportunity to clarify their doubts and engage with the speaker.

Overall, the webinar was well-received by the students, who appreciated the practical insights shared on enhancing their research skills and using quantitative methods in their academic work.



#### Ethical considerations in modern research 28th November 2020

Dronacharya College of Engineering, Gurugram organized a **webinar on ''Ethical Considerations in Modern Research''** on 28th November 2020, aimed at raising awareness among students and researchers about the importance of ethical practices in research.

The session was conducted by an expert in the field, who explained the various ethical issues researchers face today, including **data integrity**, **plagiarism**, **confidentiality**, **and authorship**. The speaker emphasized the significance of **honesty and transparency** in research, stressing how ethical conduct not only ensures the credibility of scientific work but also protects the rights of all stakeholders involved.

The webinar covered **ethical guidelines for research involving human subjects**, **animal testing**, and **conflicts of interest**. Participants were also introduced to the role of **institutional review boards (IRBs)** and other regulatory bodies that oversee research ethics.

The speaker also discussed how researchers can navigate ethical dilemmas and make decisions that align with professional standards. Case studies of unethical practices in research were shared to highlight the consequences of violating ethical guidelines.

The session concluded with a **Q&A** session, allowing participants to address their concerns and gain clarity on ethical dilemmas they might encounter in their research careers.



#### Role of simulations in system development research

#### 2nd July 2020

Dronacharya College of Engineering, Gurugram, conducted a **webinar on ''Role of Simulations in System Development Research''** on 2nd July 2020. The session aimed at educating students and researchers about the critical role that **simulation techniques** play in system development and research.

The webinar was led by an expert in the field, who discussed how **simulations** help in modeling complex systems, testing hypotheses, and visualizing outcomes without the need for physical prototypes. The speaker elaborated on various types of simulations used in **engineering, computer science, and system development**, including **system dynamics simulations, Monte Carlo simulations, and agent-based simulations**.

Participants were introduced to the advantages of simulations in reducing research time, costs, and risks while improving system reliability and performance. The session highlighted the significance of simulation tools and software in areas like **control systems, network design, and optimization**.

The speaker also shared real-world examples of simulations being used in industries to solve complex problems and streamline development processes. A Q&A session followed, where students clarified their queries on how simulations can be applied to their ongoing research projects.

The webinar was insightful, offering practical knowledge on enhancing research through the effective use of simulation tools.



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# Challenges in collecting data for cybersecurity research

# 23rd June 2020

Dronacharya College of Engineering, Gurugram, organized a **webinar on ''Challenges in Collecting Data for Cybersecurity Research''** on 23rd June 2020, aimed at enhancing the understanding of cybersecurity data collection challenges faced by researchers. The session was attended by 65 students who gained valuable insights into this critical area of research.

The webinar was conducted by an expert in cybersecurity, who outlined the **key obstacles in** gathering reliable and representative data for cybersecurity studies. The speaker discussed issues such as data privacy concerns, the scarcity of real-world data, and the complexity of obtaining accurate attack data. Participants learned about the challenges of accessing proprietary security data and the limitations of public datasets in representing emerging threats and attack vectors.

The speaker also emphasized the importance of **ethical considerations** while collecting data for cybersecurity research and the need for **collaborations with organizations** to obtain more comprehensive datasets. Additionally, the session highlighted the growing importance of **machine learning and AI** in improving data collection and analysis processes.

The webinar concluded with an interactive **Q&A session**, where students clarified their doubts and explored ways to overcome these challenges in their own research.



#### Webinar on VLSI Design: Techniques & Recent Trends

#### Date: 26th December 2020

Dronacharya College of Engineering, Gurugram, organized a **webinar on ''VLSI Design: Techniques & Recent Trends''** on 26th December 2020, aimed at providing valuable insights into the rapidly evolving field of **Very-Large-Scale Integration (VLSI)** design. The session, attended by 30 students, focused on the latest developments, techniques, and tools used in VLSI design.

The webinar was led by an expert in VLSI systems, who discussed **key techniques** involved in VLSI design such as **CMOS technology, logic synthesis, and physical design**. The speaker highlighted the importance of **scalability, power consumption**, and **design for manufacturability** in modern VLSI circuits.

The session also covered **recent trends** in VLSI, including the integration of **machine learning** and **AI** techniques into the design process, as well as advancements in **3D ICs**, **FinFET technology**, and **quantum computing** for VLSI systems.

Participants were introduced to the tools and software commonly used for VLSI design, such as **Cadence** and **Synopsys**. The speaker also emphasized the increasing demand for professionals skilled in VLSI design due to the growth of **IoT** and **wearable technologies**.

The session concluded with a **Q&A session**, where students clarified their queries regarding VLSI design challenges and career opportunities in this field.



#### Research Design: Qualitative vs. Quantitative approaches 23rd February 2021

Dronacharya College of Engineering, Gurugram conducted an insightful session on **''Research Design: Qualitative vs. Quantitative Approaches''** on 23rd February 2021. The session aimed to educate students on the fundamentals and distinctions between two major research methodologies **qualitative** and **quantitative**.

The expert speaker provided a comprehensive overview of **qualitative research**, which focuses on understanding human behavior, experiences, and perspectives through interviews, observations, and content analysis. Key elements such as thematic analysis and coding of data were discussed in detail.

In contrast, the session delved into **quantitative research**, which relies on numerical data, statistical analysis, and structured tools like surveys and experiments. The speaker explained the importance of hypothesis testing, sample size determination, and data validation.

The differences in **data collection techniques, analysis methods**, and **application scenarios** for both research types were clearly outlined. Emphasis was also placed on choosing the right research approach depending on the objective and scope of the study.

Students actively participated in the discussion and clarified their doubts regarding mixed-method approaches and practical applications in academic and industrial research.

The session proved to be highly informative and beneficial for students looking to pursue research in engineering and technology disciplines.

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## Webinar on "How to Write and Publish a Research Paper in 30 Days" 31st May 2021

Dronacharya College of Engineering, Gurugram organized a highly informative webinar on **"How to Write and Publish a Research Paper in 30 Days"** on 31st May 2021. The webinar was designed to guide aspiring researchers and students through the essential process of writing a research paper efficiently and getting it published in a reputed journal.

The expert speaker emphasized the importance of choosing a focused research topic, conducting a thorough literature review, and formulating a clear research problem. Participants were introduced to the structure of a standard research paper—covering abstract, introduction, methodology, results, discussion, and conclusion.

The session also highlighted time management techniques and writing strategies to ensure timely completion of the manuscript. Tips for identifying appropriate journals, understanding the peer-review process, and avoiding plagiarism were also shared.

The speaker demonstrated the use of various reference management tools and plagiarism checkers to aid in research writing. A roadmap was provided to break down the 30-day timeline into manageable daily writing tasks.

The session concluded with an interactive Q&A segment where students clarified their doubts regarding journal selection and publication ethics. The webinar proved to be a valuable resource for students aiming to contribute to the academic research community.



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# <u>Academic Year 2020-21</u> <u>Workshops/seminars/conferences including programs</u> <u>conducted on IPR</u>

#### Session on Why IP is important in academia?

#### 26th April 2021

Dronacharya College of Engineering, Gurugram organized an enlightening **online session on "Why IP is Important in Academia?"** to spread awareness among students and faculty about the significance of Intellectual Property (IP) in the academic world.

The session focused on how Intellectual Property Rights (IPRs) play a crucial role in protecting innovative work produced by students, researchers, and faculty members. The speaker emphasized the importance of **patents**, **copyrights**, **trademarks**, **and design rights** in securing the rights of creators and fostering innovation within academic institutions.

Participants gained insights into how IP encourages creativity and innovation, helps safeguard original research, and enables commercialization of academic inventions. The session also explored real-life case studies where academic innovations were successfully patented and transformed into marketable products or startups.

Students were guided on how to identify patentable ideas and the step-by-step process of filing for IP protection. Faculty members were also encouraged to incorporate IP awareness in their research and teaching practices.



Farrukh Nagar, Gurgaon.

# Webinar on Role of IPR in Industry 4.0 and IoT Innovations

#### 9th April 2021

Dronacharya College of Engineering, Gurugram organized a highly informative **webinar on ''Role of IPR in Industry 4.0 and IoT Innovations''**, focusing on the importance of Intellectual Property Rights (IPR) in the rapidly evolving landscape of smart technologies.

The session began with an introduction to **Industry 4.0**, highlighting the integration of digital technologies such as **IoT** (**Internet of Things**), **AI**, **robotics**, **and big data** in manufacturing and services. The expert speaker discussed how these innovations are driving competitive advantage and transforming traditional industries.

A major emphasis was placed on the significance of **IP protection in this dynamic environment**. The speaker elaborated on how patents, trademarks, and copyrights can safeguard innovations in IoT systems, smart devices, and automation frameworks. Real-life industry examples were shared to illustrate successful commercialization through effective IP strategies.

Attendees also learned about the challenges of securing IP in interconnected systems, and how academic institutions and startups can leverage IPR to encourage research and entrepreneurship.

The session concluded with an interactive Q&A segment, allowing participants to deepen their understanding of IPR in modern industry.

Overall, the webinar was insightful and emphasized the vital role of IPR in fostering innovation and ensuring sustainability in Industry 4.0.



#### **IPR Awareness Programme for Students**

#### <u>11th June 2020</u>

Dronacharya College of Engineering, Gurugram organized an **online IPR Awareness Programme for Students** on 11th June 2020, with the aim of promoting understanding of **Intellectual Property Rights (IPRs)** among the student community.

The session provided valuable insights into the various types of intellectual property including **patents, copyrights, trademarks, geographical indications, and industrial designs**. The resource speaker explained the importance of IPRs in safeguarding original ideas, inventions, and creative work, especially in academic and research contexts.

Students were introduced to the **IPR filing process**, criteria for patentability, and the significance of innovation in building a knowledge-based economy. The programme also highlighted the crucial role that educational institutions play in nurturing innovation and supporting students through IP facilitation cells and incubation centers.

Real-world case studies were discussed to illustrate how students and young entrepreneurs have successfully patented their innovations and commercialized them. The interactive session also featured a Q&A segment, where students clarified their queries about IP rights and their relevance in various disciplines.

The session concluded with a vote of thanks, acknowledging the efforts of the organizing team and the enthusiastic participation of students. The programme was highly informative and inspired students to innovate with awareness and confidence.



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# Webinar on Introduction to IPR: Patents, Trademarks, Copyrights, and Trade Secrets

# 17th June 2020

Dronacharya College of Engineering, Gurugram organized an **informative webinar on** "Introduction to IPR: Patents, Trademarks, Copyrights, and Trade Secrets" to raise awareness among students and faculty members about the various aspects of Intellectual Property Rights (IPR).

The session focused on key areas of IPR, including **patents, trademarks, copyrights**, and **trade secrets**, explaining their significance in protecting the creative and innovative work of individuals and organizations. The resource person walked participants through the **basics of patenting**, the importance of trademarks for brand protection, and how copyrights safeguard artistic and literary works.

Additionally, the concept of **trade secrets** was explained, emphasizing their importance in maintaining a competitive edge in business and research. The speaker also discussed the process of registering intellectual property, the legal rights conferred by each type of IPR, and their role in fostering innovation and entrepreneurship.

The webinar encouraged students to consider IPR as an essential tool for securing their inventions and ideas. The session concluded with an interactive Q&A round, where participants clarified their doubts about the IPR registration process and its relevance in academia and industry.

Overall, the webinar was a valuable learning experience for all attendees, enhancing their understanding of IPR and its importance in today's knowledge-driven economy.



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# Academic Year 2019-20

# <u>Workshops/seminars/conferences including programs</u> <u>conducted on Entrepreneurship</u>

#### <u>Webinar on "Navigating through COVID crisis: A dive into the Employment &</u> <u>Employability – Challenges & Opportunities ahead"</u>

#### 29th May 2020

The Training and Placement Cell of Dronacharya College of Engineering, Gurugram, in collaboration with CoCubes, organized an insightful webinar titled "Navigating through COVID Crisis: A Dive into the Employment & Employability – Challenges & Opportunities Ahead" on 29th May 2020. The session was specially curated for the 6th semester students, with 98 participants in attendance. The primary objective of the webinar was to help students understand the evolving job market during the COVID-19 pandemic and prepare them for the dynamic employment landscape.

Expert speakers from CoCubes shed light on the various challenges faced by industries due to the pandemic and discussed the emerging opportunities in different sectors. They emphasized the importance of upskilling, adaptability, and digital readiness to stay competitive in the job market. The webinar provided students with a realistic perspective on employability trends and guided them on how to effectively position themselves for future career prospects amidst uncertainty.





#### **E-Session on innovation/IPR/Startup**

#### 28th April - 22nd May 2020

**MHRD's Innovation Cell, Institution's Innovation Council** and AICTE Initiatives organized a esession on Innovation /IPR/ Startup from **28th April - 22nd May 2020**. Students from all the branches along with faculty members from **Dronacharya College of Engineering, Gurugram** attended the session. **245 students** attended the session.



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### **Exhibition cum Mentorship Session for Innovators or Students Entrepreneurs**

### 6th March 2020

MHRD Innovation cell of Dronacharya College of Engineering, Gurgaon organized Exhibition cum Mentorship Session for Innovators or Students Entrepreneurs on 6th March 2020. 67 students along with 7 Faculty members attended the event.

The keynote speaker was Mr.Ankit Singh from IBM. Mr. Singh, in his address said, India is growing at more than 7%, like an oasis of growth in the midst of a dynamic economy landscape across the world. However, there's a huge need for innovation so that India can continue to grow thereby lifting its youth population out of poverty.

In the end, there was "Showcasing Innovative Ideas Session", in which all the students were moved to the lab, where they made a presentation over their ideas and presented to the faculties and the speaker of the session.



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### Career Mentorship Session on "Building a Tech Startup with Zero Investment"

### 5th March 2020

The Institution's Innovation Council (IIC) of Dronacharya College of Engineering, Gurugram conducted a highly insightful Career Mentorship Session on "Building a Tech Startup with Zero Investment" on 5th March 2020. The session aimed to empower engineering students with practical knowledge and strategies to launch startups with minimal to no financial resources.

The session was delivered by Ms. Renu Dua (T&P Dept., DCE), a successful tech entrepreneur and startup mentor, who shared real-life experiences and actionable tips on how students can turn their innovative ideas into viable businesses without relying on external funding in the initial stages.

Key topics covered during the session included:

- Identifying tech-based problems worth solving
- Leveraging college resources and networks
- Building an MVP (Minimum Viable Product) using open-source tools
- Using freelancing and internships as bootstrapping tools
- Crowdsourcing and early customer validation techniques
- Free platforms and tools for launching and managing a startup

The speaker also emphasized the value of learning by doing, the importance of resilience, and the mindset shift required to become a resourceful entrepreneur. Students were encouraged to start small, validate quickly, and iterate based on real user feedback.

The interactive session witnessed enthusiastic participation from students who engaged with the mentor through Q&A and brainstorming activities. Many expressed interest in pursuing their startup ideas post-session.

The event concluded with a vote of thanks, appreciating the speaker's valuable guidance and the students' active involvement. It proved to be an inspirational and practical experience for young tech enthusiasts aiming to become future entrepreneurs.



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### **Entrepreneurship Awareness Camp**

### Dates: 28th February – 1st March 2020

An intensive Entrepreneurship Awareness Camp (EAC) was organized from 28th February to 1st March 2020 by IIC, DCE which aimed at nurturing the entrepreneurial spirit among B.Tech students and introducing them to the fundamentals of starting and managing a business venture. 75 students attended the camp.

The 3-day camp was conducted under the guidance of industry experts, startup founders, and academic mentors, and included a series of interactive sessions, workshops, and hands-on activities. The program was structured to provide participants with a foundational understanding of entrepreneurship and innovation.

Key components of the camp included:

- Day 1: Introduction to Entrepreneurship & Startup Ecosystem
- Day 2: Idea Generation Techniques, Business Plan Development
- Day 3: Interaction with Successful Entrepreneurs, Pitching Practice & Feedback

Topics covered ranged from identifying viable business opportunities and conducting market research to understanding funding sources, legal formalities, and intellectual property rights.

Participants were also given exposure to:

- Government schemes supporting startups (like Startup India, MSME support)
- Case studies of successful tech startups
- Tools for building lean business models and prototypes

The camp encouraged group discussions, idea brainstorming, and networking among stuplents from various disciplines. Each day concluded with feedback and Q&A sessions that he ball ganfding meering refine their business thinking.

The event concluded with a certificate distribution ceremony and a vote of thanks to the resource persons and organizing team. The EAC proved to be a highly enriching experience for all attendees, sparking enthusiasm to pursue entrepreneurship as a viable career path.



# Lecture Series: Innovation, IPR & Startup

### 20th February 2020

**Dronacharya College of Engineering, Gurugram** organized the first session of lecture series "Innovation, IPR & Startup", under the umbrella of Institution's Innovation Council (IIC), MHRD, Govt. of India on 20th February 2020 at college campus. The speaker of the session was Mr. Prabhat Kumar Jha, DGM (Retd.), Maruti Suzuki India Ltd. Faculty members along with 247 students from CSE, IT, ECE, ME Department attended the session.

**Mr. Jha** discussed various opportunity identifications such as Entrepreneurship Background & Investigation, Educational Qualification & Experience, Location, and availability of Raw Materials, Market Potential, Technology & Equipment, Infrastructural Requirements, Government Policy, Availability of Skilled Manpower and Pollution Control Laws.

**Mr. Prabhat Kumar Jha** explained the students, Innovation is a primary source of competitive advantage for companies, environments and drives efficiency, productivity, and differentiation to fill a higher variety of needs and technology builds upon itself, enabling innovative approaches within the evolution of technology.

**Mr. Jha** also discussed in detail "IPR & Technology Transfer". He discussed on filing of patents, copyrights, trademarks, service marks, industrial designs, integrated circuits, geographical indications, trade secrets. He also discussed several initiatives of Govt. towards bringing up the new ideas from people and patenting it.

In the end there was a question and answer session where students cleared their doubts.





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### **Entrepreneurship Development Programme (EDP)**

# <u>31st January – 3rd February 2020</u>

The Entrepreneurship Development Programme (EDP) was conducted from 31st January to 3rd February 2020 at [Insert Institution Name], with the aim of nurturing entrepreneurial talent among students and equipping them with the skills needed to start and sustain their own ventures.

This 4-day programme provided a comprehensive introduction to the entrepreneurial process—from ideation and business planning to execution and growth strategies. The sessions were curated to inspire and empower students with both theoretical and practical knowledge.

Programme Highlights:

Day 1:

- Understanding the Entrepreneurial Mindset
- The Startup Ecosystem in India
- Traits and Challenges of First-Time Entrepreneurs

#### Day 2:

- Ideation Techniques & Opportunity Evaluation
- Market Analysis and Customer Discovery
- Case Study: From Campus to Company

#### Day 3:

- Business Model Canvas Workshop
- Financial Planning and Bootstrapping
- Legal Aspects and Company Registration Basics

#### Day 4:

- Pitching and Presentation Skills
- Government Schemes and Startup India Initiatives
- Interaction with a Guest Entrepreneur

The programme featured experienced speakers including startup founders, incubator representatives, and domain experts. Students were actively engaged in group activities, idea validation tasks, and hands-on sessions that helped translate their academic learning into real-world applications.

The event concluded with a group pitch presentation by students, followed by feedback from the expert panel. Certificates of participation were distributed, and students left motivated to take their startup ideas forward.



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### Seminar on: Effective Pitching Techniques & Investor Expectations

### 27th January 2020

Institution's Innovation Council (IIC), Dronacharya College of Engineering, Gurugram conducted a seminar on "Effective Pitching Techniques & Investor Expectations" on 27th January 2020 to guide aspiring entrepreneurs, especially B.Tech students, in presenting their startup ideas confidently and understanding what investors truly look for. 48 students attended the seminar.

Key highlights of the seminar included:

- Structuring a pitch deck: problem, solution, market size, business model, traction, and team
- Tips for delivering confident and persuasive presentations
- Understanding different types of investors (angel, VC, incubators)
- Common investor questions and how to prepare for them
- Do's and Don'ts while pitching to investors

Real startup pitch examples were analyzed, and students were guided through practical scenarios to help them fine-tune their own entrepreneurial presentations. The session also covered the psychological side of pitching—like handling rejections, maintaining clarity, and creating an impactful narrative.

Participants actively interacted with the speaker, gaining practical feedback and inspiration for their startup journeys. The seminar concluded with a vote of thanks, and attendees left with valuable tools to better communicate their innovative ideas and meet investor expectations.



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# Webinar on Tech Trends That Can Spark Startups

### 24th January 2020

On 24th January 2020, the Institution's Innovation Council (IIC) of Dronacharya College of Engineering (DCE) organized a forward-looking webinar on "Tech Trends That Can Spark Startups" to introduce students to emerging technologies and their entrepreneurial potential.

The session was led by **[Insert Speaker Name]**, a technology evangelist and startup mentor, who shared deep insights into cutting-edge innovations that are reshaping industries and opening up new avenues for tech entrepreneurs.

### Key Highlights of the Webinar:

- Overview of emerging technologies: AI/ML, Blockchain, IoT, AR/VR, and Cloud Computing
- How these trends are solving real-world problems and driving startup growth
- Identifying gaps in current markets that can be filled using technology
- Tech startup success stories and market-ready applications
- How students can get started: learning paths, prototyping tools, and MVP strategies

The speaker emphasized that timing and tech alignment are critical to startup success. Students were encouraged to observe their surroundings, identify inefficiencies, and creatively apply technology to address them.

The webinar concluded with an engaging Q&A session, where participants asked about startup ideation, team formation, funding opportunities, and how to stay updated with fast-evolving tech landscapes.

The session was well-received and left students motivated to explore entrepreneurship through innovation. A vote of thanks was extended to the speaker and all attendees for their active participation and enthusiasm.



### **Business Plan Development Workshop**

### 21<sup>st</sup> January 2020

A comprehensive **Business Plan Development Workshop** was held on **January 7**, **2020**, providing participants with essential knowledge and practical skills for creating effective business plans. The one-day intensive session guided attendees through the entire process, covering critical elements including executive summary development, market analysis methods, marketing strategy formulation, operational planning, financial projections, and risk assessment. The workshop combined theoretical frameworks with hands-on activities, allowing participants to actively work on elements of their own business plans throughout the day.

The interactive format featured practical exercises such as peer review sessions, small group work on competitive analysis, and financial modeling using provided templates. Expert business advisors shared real-world examples and common pitfalls to avoid when presenting to potential investors. By the end of the workshop, participants had developed structured outlines of their business plans with clear next steps, increased confidence in communicating their business ideas, practical tools for financial forecasting, and a network of peers and mentors for ongoing support. The workshop proved valuable for both aspiring entrepreneurs and established business owners looking to refine their strategic direction or seek additional funding.



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### **Entrepreneurship Development Program**

### **IIC Innovation Ambassador Training Series by IIC & MHRD's Innovation Cell**

### 16th - 17th January 2020

To boost up start-ups and entrepreneurships spirit MHRD's Innovation Cell, Institution's Innovation Council organized a two day **IIC Innovation Ambassador Training Series** on **16th -17th January 2020** at LPU.

In the program many parallel sessions on four different themes namely "Design Thinking and Innovations", "IPR and Technology Transfer", "Entrepreneurship Development Program", "Pre Incubation and Incubation Management" were conducted. Faculty member **Mr. Abhinav Panwar**, Assistant Professor, ME Department **Dronacharya College of Engineering, Gurugram, Best Engineering in Delhi NCR** attended Entrepreneurship Development Program.

The inauguration ceremony was addressed by **Mr. Dipan Sahu**, Executive Consultant, National Coordinator, IIC and **Mr. Ankush Prakash Sharma**, Innovation Officer, MHRD Innovation Cell, IIC Regional Coordinator, NRO & NWRO Region.

After the inauguration ceremony, introduction to the Heuristic game was given by **Mr. Kunwar Vijay**, **Founder 3imacs Pvt. Ltd** and several teams of four members were formed. Then, the Heuristic game was being played by all the participants in the round one, which was bit easy. In the second round of the game, the teams were asked to include various risks and possible ways of their solution which usually appears in any start-up.

In the second phase, the participants filled worksheets for the given particulars in the sheets. The participants were quite clear about the difference between pain, problem and idea. Each team member had to give one idea with its pain and problem identification. At the end of session each team was ready with one of the best idea out of the four ideas.

On the second day, each faculty was assigned as the mentor and financer, and the topics were judged by them. Then, the two teams were combined into one, and ideas of both the teams were judged and elected on several parameters. The best idea was presented in front of all other teams and jury members, **Mr. Rahul Saraswat**, **Director, 3imacs Pvt. Ltd.**, **Mr. Kunwar Vijay**, **Ms. Ritu** and **Ms. Aasima**.

There was the "Fire-up-Session" at the end of every presentation, in which the jury members asked several questions about the idea and its feasibility.

In the end, the valedictory session was held in which all the guest gave their viewpoints on entrepreneurship and feedback from participants was taken.





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# Design Thinking and Innovations IIC Innovation Ambassador Training Series by IIC & MHRD's Innovation Cell <u>16th - 17th January 2020</u>

Two-day workshop of Faculty Innovation Ambassadors was conducted by Institution's Innovation Council (IIC) & MHRD's Innovation Cell (MIC) from 16th -17th January 2020 at LPU. Faculty member Mr. Sunil Bist, Assistant Professor ECE, Department Dronacharya College of Engineering, Gurugram, attended the "Design Thinking and Innovations" training series and became the IIC Innovation Ambassador of Dronacharya College of Engineering, Gurugram.

In IIC Innovation Ambassador Training Series more than 25 Mentors from MHRD's Innovation Cell built mentorship capacity of 300+ IIC members through a series of 4 four simultaneous training programmes on "**Pre Incubation and Incubation Management**", "**Entrepreneurship Development Program**", "**Design Thinking and Innovations**" and "**IPR & Technology Transfer**". The trained IIC members will be designated as "**IIC – Innovation Ambassador**" to further mentor students.

For 'Design Thinking and Innovations' training, NODES team (4-member) headed by Ms. Prajakta Kulkarni trained 60+ faculty of various northern engineering institutions by means of interactive activities, brainstorming, and various methods about the importance of values, empathetic observation, research methods, designing unique solutions to problems and leadership. In this regard, various exercises were also developed. It was told to the learning members to learn first of all to be an innovator, only then they can teach others on innovations.

The recipients of these training programs will join the Ambassadors nationwide network and perform the role of mentor in their respective IICs. To further guide students, **Institution's Innovation Council** (IIC) of MHRD's Innovation Cell is determined to build mentorship capacity of IIC members.

The inauguration ceremony was addressed by **Mr. Dipan Sahu**, Executive Consultant, National Coordinator, IIC and **Mr. Ankush Prakash Sharma**, Innovation Officer, MHRD Innovation Cell, IIC Regional Coordinator, NRO & NWRO Region.



### **Tech Entrepreneurship: From Coding to Company**

### 8th January 2020

The Institution's Innovation Council (IIC) of Dronacharya College of Engineering (DCE) organized an insightful seminar titled "Tech Entrepreneurship: From Coding to Company" on 8th January 2020. This session was designed to help tech-savvy students understand the journey of transforming coding skills and innovative ideas into successful startups.

The session was led by **[Insert Speaker Name]**, a tech entrepreneur and startup coach, who shared key strategies and practical insights on how engineers can leverage their technical know-how to create real-world solutions and build scalable businesses.

### **Key Topics Covered:**

- Identifying startup-worthy problems through technology
- Bridging the gap between technical development and business models
- Building a Minimum Viable Product (MVP) with limited resources
- Importance of validation, feedback, and early adopters
- Creating a founding team: Roles of tech, design, and business
- Case studies of engineers who launched successful startups

The event emphasized that coding is not just a skill but a powerful tool for innovation when combined with entrepreneurial thinking. Participants learned how to shift their perspective from building features to solving user-centric problems.

The seminar also included an interactive Q&A session where students asked questions about startup funding, team building, and scaling up tech ventures. The speaker provided real-world examples to help illustrate the importance of persistence, networking, and user feedback.

The session concluded with a vote of thanks to the speaker and participants. The seminar served as a motivating experience for students aspiring to transition from coders to startup founders.



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### **Mentorship Session for Innovation & Entrepreneurship**

### 7th January 2020

**Dronacharya College of Engineering, Gurugram** under the flagship of **MHRD Innovation Cell**, organized a mentorship session on **''Innovation & Entrepreneurship''** on **7th January 2020** at college campus. Students from CSE, IT, ECE, ME Department participated in the session.

The objective of the session was to discuss entrepreneurship, its process and benefits, The welcome speech was given by student **Mr. Sachin Kumar.** Then **Mr. Amar Saraswat**, **Assistant Professor. Prof, IT Department**, discussed the barriers of entrepreneurship which included Entry, Exit and Growth Barriers. He also discussed about the importance for creating large number of start-ups for the economy of India.

**Mr. Saraswat** also explained about the basic difference between Enterprise, Entrepreneur and Entrepreneurship and how to create value and understand opportunity. He said, an entrepreneur is opportunity obsessed with a goal of creating value without regard to resources currently controlled.

Next, **Mr. Saraswat** discussed about key component of Enterprise Creation Process. He also explained augmenting entrepreneurial supply through inducement, policy interventions, training interventions, provisioning of business development strategies.

Then, **Mr. Saraswat** engaged the participants into various activities such as 30 Circle Exercise, 30 Square Exercise and conducted a Torrence Test for Creativity. He also discussed Activity Learning Mechanism and its approaches which include Trait based approach, process based approach, and method / skill based approach.

**Mr. Amar Saraswat** also discussed in detail seven keys to competitive business strategy, which includes analysing strength and weakness, assessing the opportunity, determining the core values, defining end state goals, assessing related risks, implementing the strategy, and evaluating the business strategy.

In the end there was a question and answer session were students cleared their doubts.





### **Two Day Innovative & Game-Based Entrepreneurship Development Program**

# <u>2<sup>nd</sup> – 3<sup>rd</sup> November 2019</u>

A dynamic two-day Entrepreneurship Development Program featuring innovative game-based learning approaches was conducted on **November 2-3**, **2019**. The program was designed to foster entrepreneurial mindsets and develop practical business skills through interactive simulations and experiential activities. Day One: November 2, 2019

The first day focused on entrepreneurial foundations through engaging gameplay:

- Business Simulation Games: Participants managed virtual companies, making strategic decisions about production, marketing, and finance in competitive market scenarios
- Design Thinking Challenges: Teams worked through creative problem-solving exercises to identify market opportunities and develop innovative solutions
- Resource Allocation Activities: Interactive games demonstrated principles of efficient resource management and opportunity cost
- Networking Simulations: Structured activities helped participants practice building professional connections and communicating value propositions

#### Day Two: November 3, 2019

The second day built upon these foundations with advanced entrepreneurial concepts:

- Market Strategy Role-Play: Participants adopted different market positions to understand competitive dynamics and positioning strategies
- Pitch Competition: Teams developed and presented business concepts to a panel of mock investors
- Crisis Management Scenarios: Simulated business challenges tested participants' decision-making under pressure
- Business Model Canvas Workshop: Interactive sessions helped attendees structure their business ideas using this strategic management tool

#### Learning Outcomes

The program successfully delivered several key benefits:

- 1. Experiential Learning: Participants gained hands-on experience with entrepreneurial concepts in a low-risk environment
- 2. Practical Skill Development: The game-based approach built tangible skills in financial planning, marketing strategy, and team management
- 3. Mindset Transformation: Activities challenged participants to think like entrepreneurs, embracing uncertainty and seeking opportunities
- 4. Network Building: The collaborative nature of the games fostered meaningful connections among participants



Principal Date: Dronacharya College of Engineering 2<sup>nd</sup> - 3<sup>rd</sup> November, 2019 Farrukh Nagar, Gurgaon.

# Innovator's Life & Crossroad Motivational Speech

### 23rd October 2019

**Dronacharya College of Engineering, Gurgaon** under the flagship of **MHRD Innovation Cell**, organized a motivational talk "**Innovator's Life & Crossroad Motivational Speech**" on **23rd October 2019** to motivate students about innovation and research at college campus. Students from CSE, IT, ECE and ME Department attended the talk.

The event was inaugurated by **Mr. Amar Saraswat**, Assistant Professor, IT Department, then **Prof.** (**Dr.**) **Isha Malhotra** discussed the importance of research in day to day life. She also quoted the daily life experiences that one can observe to get a problem statement for research.

Next **Dr. Malhotra** explained the various parameters on how the research can be initiated. Quoting an example she discussed necessity of researchers to make our country prosperous. **Dr. Malhotra** stated research inculcates scientific inductive thinking and it promotes the development of logical habits of thinking and organization.

She also discussed the role of research in several fields of applied economics, whether related to business or to the economy as a whole, has greatly increased in modern times. Focussing on the research, **Dr. Malhotra** said, it provides the basis for nearly all government policies in our system and has its special significance in solving various operational and planning problems of business and industry. Research is equally important for social scientists in studying social relationships and in seeking answers to various social problems.

**Dr. Malhotra** concluded the session & discussed some of the research areas and key problems with the students. Moreover, she motivated the audience to actively engage in all the research activities, attend conferences and initiate the research from the ground level. In the end, **Mr. Amar Saraswat** delivered the vote of thanks.

Overall talk proved to be fruitful to the students.





Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

# An Entrepreneurial Workshop & Competition ''What's your big idea?'' 22nd October 2019

Dronacharya College of Engineering, Gurgaon under the flagship of MHRD Innovation Cell, organized an entrepreneurial workshop & competition "What's your big idea?" on 22nd October 2019 to bring out the entrepreneurship skills of the students. Students from CSE, IT ECE and ME Department participated in the event.

The event was inaugurated by **Mr. Amar Saraswat**, Assistant Professor, IT Department. **Mr. Saraswat** motivated the students by presenting certain facts on entrepreneurship. He also discussed the need of entrepreneurs to the country.

Next, the main "Construction" phase of the workshop started, when **Mr. Saraswat** gave the option of picking out a slip on which one idea was written. Then, the students were given one minute time to pick up the essential material needed to develop the idea.

Then, the students were guided by **Ms. Ashu Khurana**, Assistant Professor & EDC Coordinator, CSE Department to develop the various ideas.

Next, the "Presentation" phase started where the students demonstrated their product in front of the judges and audience. The students spoke on various parameters such as how the product was developed, the innovation used in the product, how the product developed by them is more useful than those available in the market, and how to attract the consumer to purchase there developed product.

The last round was "Q&A", in which the judges asked various questions to the participants about their products such as durability etc. In the end, the judges concluded the workshop and **Mr. Saraswat** declared the results.

**Preeti** (22671) from CSIT and Garima Gupta (22052), from CSE stood first in the competition. Siddharth Khurana (20905) from CSE obtained second and Prerna Gupta (22118) from CSE and Jyoti Chaudhary (22660) from CSIT obtained third position in the competition.

In the end, **Mr. Saraswat** gave certificates to all the winners and participants and delivered the vote of thanks.





Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

### ETalk "Entrepreneur's Life & Crossroad"

### 09th October 2019

**Dronacharya College of Engineering, Gurgaon** under the flagship of MHRD Innovation Cell, organized a seminar on "Entrepreneur's Life & Crossroad", on 9th October 2019. Students from CSE, IT, ECE and ME Department attended the e-talk.

Mr. Piyush Pandey (CEO, Internexus and Founder of Cybernaut Tech). Mr. Pandey discussed the main importance of entrepreneurship; Creation of job opportunities, innovation and improve the economy. Motivating the students, he said man behind the entrepreneurship is an action-oriented and highly motivated individual who is ready to achieve goals.

Mr. Pandey discussed his success story, along with all the hurdles he faced during the entrepreneurial journey. He also discussed how he overcame with those situations.

He also discussed the several technical languages and their importance in various domains. Mr. Pandey emphasised on practical knowledge and motivated the students to have keen interest into it.

Overall, the session was informative and students learnt a lot on entrepreneurship skills and formation of start-up. In the end, a vote of thanks was given by Mr. Amar Saraswat, Assistant Professor, IT Department and Mrs. Ashu Khurana, Assistant Professor & EDC Coordinator, CSE Department.



Principal Dronacharya College of Engineeri Farrukh Nagar, Gurgaon.

# Workshop on Freelancing to Startup: The Gateway for Coders

# <u> 31st July – 1 August 2019</u>

A two-day workshop on **"Freelancing to Startup: The Gateway for Coders"** was organized by Institution's Innovation Council (IIC), Dronacharya College of Engineering, Gurugram on **31st July and 1st August 2019** with the objective of introducing B.Tech students to the world of freelancing as a stepping stone towards launching their own tech startups.

The workshop was specially designed for budding coders, developers, and tech enthusiasts to help them understand how their skills can be monetized through freelance platforms and eventually scaled into sustainable entrepreneurial ventures.

#### **Day-wise Highlights:**

#### **Day 1: Freelancing Fundamentals**

- Overview of popular freelancing platforms (Upwork, Fiverr, Freelancer, etc.)
- How to create standout profiles and pitch for gigs
- Building a personal brand and client communication skills
- Managing payments, deadlines, and client feedback

#### Day 2: Transitioning to a Tech Startup

- Turning freelance projects into scalable products
- Identifying problems worth solving through tech
- Building a team, MVP creation, and lean startup methodology
- Legal formalities, domain registration, and startup basics

Live platform demos and profile-building activities helped participants gain confidence and clarity. Participants also got to network, form small teams, and pitch hypothetical ideas based on their freelancing experiences. The interactive and practical format of the workshop was highly appreciated by all attendees. The event concluded with a feedback session and certificate distribution. The workshop successfully ignited entrepreneurial thinking among tech-savvy students and encouraged them to view freelancing not just as a side hustle, but as a launchpad for bigger ventures.



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# **Guest Lecture on Innovation and Entrepreneurship**

### **26<sup>th</sup> July 2019**

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized an enlightening guest lecture on "Innovation and Entrepreneurship" on 26<sup>th</sup> July 2019, offering students valuable insights into the interconnected worlds of creative problem-solving and business development.

Event Overview

The lecture explored the fundamental principles of innovation and how they serve as catalysts for successful entrepreneurial ventures. The session emphasized that innovation isn't merely about inventing new products but also involves reimagining processes, services, and business models to create sustainable value.

• Key Topics Covered

The comprehensive presentation addressed several crucial aspects of innovation and entrepreneurship:

Innovation Mindset: Cultivating curiosity, creative thinking, and willingness to challenge conventional wisdom

Identifying Market Opportunities: Techniques for recognizing unmet needs and potential solutions Lean Startup Methodology: The build-measure-learn cycle and minimum viable product development

Resource Mobilization: Strategies for securing funding, talent, and other essential resources

Risk Management: Balancing bold innovation with practical risk assessment

• Outcomes and Impact

The lecture successfully bridged theoretical concepts with practical applications, inspiring students to consider entrepreneurship as a viable career path. Many participants expressed renewed confidence in their ability to transform innovative ideas into market-ready ventures.

The event reflected the institution's commitment to fostering an entrepreneurial ecosystem that prepares students to become job creators rather than just job seekers in an increasingly competitive global economy.



### **Guest Lecture on ''Brand Building Strategies**

### **17<sup>th</sup> July 2019**

On July 17, 2019, the Institution's Innovation Council (IIC), Dronacharya College of Engineering, Gurugram hosted an insightful guest lecture on "Brand Building Strategies." The session provided valuable insights into effective branding techniques for startups and established businesses alike.

Key Highlights: The lecture explored fundamental aspects of brand development, including:

- Brand Identity Development: Creating distinctive visual and conceptual elements that differentiate a brand in the marketplace
- Target Audience Analysis: Understanding customer demographics and psychographics to create resonant brand messaging
- Consistent Brand Communication: Maintaining uniform messaging across all platforms to build brand recognition
- Digital Branding Strategies: Leveraging social media and online platforms for brand enhancement

• Brand Positioning: Establishing a unique place in consumers' minds relative to competing products Speaker Insights

- The guest lecturer emphasized that successful brand building requires:
- Authenticity in brand messaging
- Understanding the emotional connection between consumers and brands
- Consistency across all touch points
- Adaptability to changing market conditions
- Strategic storytelling to create memorable brand narratives

#### Practical Applications

Attendees participated in interactive sessions applying branding concepts to real-world scenarios. The workshop component allowed students to develop mini brand strategies for hypothetical products, receiving feedback from industry experts.

#### Outcomes

The lecture provided DCE students with practical knowledge about developing effective brand identities, particularly valuable for engineering students interested in entrepreneurship and product development. Participants gained insights into how technical innovations can be successfully marketed through strategic brand building.



# Academic Year 2019-20

# Workshops/seminars/conferences including programs conducted on IPR

#### IPR & Technology Transfer Training

#### IIC Innovation Ambassador Training Series by IIC & MHRD's Innovation Cell

### 16th - 17th January 2020

To provide Ambassador training to the IIC Members of the Institutes, two-day IIC Innovation Ambassador Training Series was conducted by Institution's Innovation Council (IIC) & MHRD's Innovation Cell (MIC), from 16th -17th January 2020, at LPU. Faculty member Mr. Amar Saraswat, Assistant Professor, IT Department, Dronacharya College of Engineering, Gurugram attended the "IPR & Technology Transfer" training series and became the IIC Innovation Ambassador of Dronacharya College of Engineering, Gurugram.

### <u>Day 1:</u>

Dr. Lovi Raj Gupta honoured the elite guests. Inaugural Address was given up by Mr. Dipan Sahu, Executive Consultant, National Coordinator, Institution's Innovation Council, followed by the special address by Mr. Ankush Prakash Sharma, Innovation Officer, MHRD Innovation Cell, IIC Regional Coordinator, NRO & NWRO Region.

The Ambassador Training Series was given up in four domains, i.e. Design Thinking & Innovation, IPR & Technology Transfer, Entrepreneurship Development Program and Pre- Incubation & Incubation Management.

In the IPR & Technology Transfer series, Speaker Mr. Pramod Kumar Singh, Advocate, The Legist, gave the introduction to IP and Types of IPR. Mr. Singh said Intellectual Property is the intangible creations of human intellect. He also discussed trademarks, sound marks, 3-D Trademarks, and the Geographical Indications. In the next session Mr. Vishwas Sethuraman S, Managing Associates, Rahul Chaudhary & Partners explained the participants, the difference between innovation & invention, identifying and evaluating Ideas, Novelty and Inventiveness.

**Mr. Pramod** continuing the session discussed Piracy & Plagiarism, Types of Plagiarism, which includes Copy & Paste Plagiarism, Word Switch Plagiarism, Metaphor Plagiarism, Reasoning Style / organizational Plagiarism. The next session was taken up by **Mr. Vishwas** where he discussed phases of patent application, and benefits of filing a patent. He also discussed the process of registering Industrial designs.

### **Day 2:**

The first session of the day, on **"Branding and Trademarks"** was taken up by the eminent speaker **Mrs. Pooja**. She discussed types of trademarks, steps to register the trademarks, absolute grounds for refusal and registration of trademarks, defences to relative grounds of refusal.

The second session on "Geographical Indications" was taken up by Mr. Prateek. He discussed prominent GI's of India, Uruguay Round of a GATT, Indian Legislations for Geographical Indications. Talking about the Geographical Indications, Mr. Prateek said, it is an indication which identifies such goods as agricultural goods or natural goods or manufactures in the territory of a country, where the a given quantity is there.

The third session was given up by Mr. Vishal Sharma, on "Transfer of Technology, Entrepreneurship & IP Interrelations", in which he discussed the various aspects of technology transfer.

The last session of the series was taken up by **Mr. Sanjeev Majumdar**, NRDC, over "**IPR & Technology Transfer**". He discussed on filing of patents, copyrights, trademarks, service marks, industrial designs, integrated circuits, geographical indications, trade secrets. He also discussed several initiatives of Govt. towards bringing up the new ideas from people and patenting it.

The overall series of the two-day IIC Innovation Ambassador Training Series proved fruitful to the participants as they learnt a lot on IPR & Technology Transfer and other several domains.





Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

### **E-Session on innovation/IPR/Startup**

### 28th April - 22nd May 2020

MHRD's Innovation Cell, Institution's Innovation Council and AICTE Initiatives organized a **e-session on Innovation /IPR/ Startup from 28th April -22nd May 2020**. Students from all the branches along with faculty members from Dronacharya College of Engineering, Gurugram attended the session.



Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

# <u>Seminar on types of Intellectual Property: Patents, Copyrights, Trademarks,</u> <u>Trade Secrets</u>

### 25th July 2019

A seminar on the various types of Intellectual Property (IP) was organized on 25th July 2019, with active participation from 65 students. The session aimed to raise awareness and understanding of key IP categories including **Patents**, **Copyrights**, **Trademarks**, and **Trade Secrets**. The seminar covered the importance of protecting creative and innovative work, procedures for filing different types of IP, and real-world examples from industry. The event encouraged students to think critically about innovation and IP protection in their academic and entrepreneurial pursuits.



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### Workshop on Importance of IPR in Engineering and Technology

### 17th September 2019

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya College of Engineering, Gurugram organized a **Workshop on the Importance of Intellectual Property Rights (IPR) in Engineering and Technology** on **17th September 2019** to raise awareness among students and faculty about the crucial role of IPR in the modern innovation ecosystem. 71 students attended workshop. The session emphasized on the need for protecting inventions, designs, and creative works in the field of engineering. Participants were introduced to the various forms of IPR—particularly patents, trademarks, and design rights—and their relevance to academic research, product development, and entrepreneurship.

The workshop also focused on how engineers and technologists can benefit from understanding and utilizing IPR mechanisms. Real-world case studies and examples were discussed to demonstrate how intellectual property can be a strategic tool for innovation and competitive advantage. The interactive session encouraged active participation and helped attendees understand the process of filing for IPR and the legal and commercial benefits it can offer.



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### Lecture Series: Innovation, IPR & Startup

### 20th February 2020

**Dronacharya College of Engineering, Gurugram** organized the first session of lecture series "Innovation, IPR & Startup", under the umbrella of Institution's Innovation Council (IIC), MHRD, Govt. of India on 20th February 2020 at college campus. The speaker of the session was Mr. Prabhat Kumar Jha, DGM (Retd.), Maruti Suzuki India Ltd. Faculty members along with 247 students from CSE, IT, ECE, ME Department attended the session.

**Mr. Jha** discussed various opportunity identifications such as Entrepreneurship Background & Investigation, Educational Qualification & Experience, Location, and availability of Raw Materials, Market Potential, Technology & Equipment, Infrastructural Requirements, Government Policy, Availability of Skilled Manpower and Pollution Control Laws.

**Mr. Prabhat Kumar Jha** explained the students, Innovation is a primary source of competitive advantage for companies, environments and drives efficiency, productivity, and differentiation to fill a higher variety of needs and technology builds upon itself, enabling innovative approaches within the evolution of technology.

**Mr. Jha** also discussed in detail "IPR & Technology Transfer". He discussed on filing of patents, copyrights, trademarks, service marks, industrial designs, integrated circuits, geographical indications, trade secrets. He also discussed several initiatives of Govt. towards bringing up the new ideas from people and patenting it.

In the end there was a question and answer session where students cleared their doubts.



Principal Dronacharya College of Engineering Farrukh Nagar, Gurgaon.

# Academic Year 2019-20 Workshops/seminars/conferences including programs conducted on Research

# Workshop on "Exploring Fundamental Literature Review Concepts and the Significance of Citation in Research

### **5th August 2019**

Dronacharya College of Engineering, Gurugram organized a workshop titled "Exploring Fundamental Literature Review Concepts and the Significance of Citation in Research" on 5th August 2019. The session aimed to build foundational knowledge among students and budding researchers on the importance of literature review and citation practices in academic writing.

The workshop began with an introduction to the role of a literature review in understanding existing research gaps and establishing the context of one's study. Students were guided on how to identify credible sources, interpret existing findings, and critically analyze scholarly articles. The facilitator emphasized the systematic approach to writing literature reviews using frameworks like thematic and chronological review methods.

Another key highlight of the session was the discussion on the **importance of proper citation and** referencing to avoid plagiarism and uphold academic integrity. Participants were introduced to widely used citation styles such as APA, MLA, and IEEE. Tools like Mendeley and Zotero were also demonstrated to simplify the citation process.

The interactive workshop concluded with a Q&A session, allowing students to clarify doubts about citation techniques and literature synthesis. Overall, the session was informative, and it enhanced the participants' ability to conduct structured academic research.



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# Seminar on Digital Marketing and Efficient Use of Tools in the Marketing

### 14th February 2020

A seminar on **"Digital Marketing and Efficient Use of Tools in Marketing"** was organized at Dronacharya College of Engineering, Gurugram, on 14th February 2020. The session aimed to expose students to the evolving landscape of digital marketing and the role of modern tools in shaping effective marketing strategies.

The resource person elaborated on the growing importance of digital channels such as social media, email marketing, search engines, and content marketing. Students were introduced to essential tools like **Google Analytics**, **SEMRush**, **Canva**, and **Mailchimp**, which help marketers in tracking user behavior, optimizing SEO, and managing digital campaigns effectively.

The seminar covered key concepts such as **target audience identification**, **campaign management**, and **performance metrics**. The speaker also highlighted the shift from traditional to digital marketing and its benefits including cost-effectiveness, real-time results, and broader reach.

Interactive demonstrations and case studies helped students understand the practical application of these tools. The session concluded with a Q&A round where students actively engaged and clarified their queries.

Overall, the seminar was an insightful learning opportunity, equipping participants with knowledge and practical exposure to digital marketing fundamentals and tools.



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# <u>Two-day IIC Innovation Ambassador Training Series on Pre-Incubation and</u> <u>Incubation Management</u>

# 16th - 17th January 2020

Dronacharya College of Engineering, Gurugram participated in the **Two-Day Innovation Ambassador Training Series** organized by the **Ministry of Education's Innovation Cell (MIC)** under the **Institution's Innovation Council (IIC)** framework. The training was focused on "**Pre-Incubation and Incubation Management**" and held from **16th to 17th January 2020**.

The training aimed to empower Innovation Ambassadors with the necessary knowledge and skills to effectively mentor students and manage pre-incubation and incubation processes at the institutional level. The session covered core topics including **idea validation**, **prototyping**, **and market analysis**, **mentorship networks**, **funding sources**, and **building incubation ecosystems**.

Interactive modules were delivered by eminent resource persons and innovation ecosystem enablers who shared best practices and real-world incubation success stories. The training emphasized developing sustainable strategies for fostering innovation and entrepreneurship among students.

The faculty representative from Dronacharya College of Engineering actively participated and received certification as an **Innovation Ambassador**, qualifying them to support and guide budding innovators on campus. The training concluded with an action plan discussion to integrate the learnings into institutional innovation activities.



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### Workshop on Using Surveys and Data Analytics in Research Projects

# 28th February 2020

**IIC Dronacharya College of Engineering, Gurugram** organized a one-day **Workshop on "Using Surveys and Data Analytics in Research Projects"** on **28th February 2020**. The session was designed to help students and faculty members strengthen their understanding of survey methodology and data analytics, essential tools in modern academic and industry research.

The workshop commenced with an introduction to the fundamentals of survey design, including framing objectives, preparing effective questionnaires, and selecting representative samples. Emphasis was placed on understanding different types of data – qualitative and quantitative – and their respective roles in deriving meaningful insights.

Further, participants were introduced to **data analytics techniques** using practical tools such as Excel, SPSS, and Python libraries. Concepts like data cleaning, visualization, correlation analysis, and regression modeling were demonstrated through real-life research case studies.

The resource person also discussed the ethical aspects of conducting surveys and managing collected data responsibly. Attendees were encouraged to apply analytics not only to academic projects but also in solving industry-relevant challenges.

The workshop concluded with an interactive Q&A session and a hands-on task, leaving participants better equipped to apply data-driven approaches in their future research initiatives.



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# How to Publish Your Research in IEEE and Scopus Journals

### 21st June 2019

The **Research and Development Cell** of **Dronacharya College of Engineering, Gurugram** conducted a highly informative session on **"How to Publish Your Research in IEEE and Scopus Journals"** on **21st June 2019**. The event was attended by 42 participants including students and faculty members with keen interest in research publication.

The objective of the session was to guide participants on the essential steps for publishing their research in reputed and peer-reviewed international journals like **IEEE** and **Scopus-indexed** journals. The speaker began by explaining the importance of publishing in credible journals and how it adds value to one's academic and professional profile.

Key topics covered included identifying appropriate journals, understanding their scope, structuring the manuscript, referencing styles, avoiding plagiarism, and following ethical publication practices. Special emphasis was placed on writing impactful abstracts, keywords, and conclusions, which play a crucial role in increasing the visibility and acceptance of a paper.

The resource person also explained the review and revision process and shared tips to avoid common mistakes that lead to rejection. The session concluded with a vibrant interaction, where participants got answers to their queries related to publishing.



# How to Structure a Research Paper for Peer-Reviewed Journals

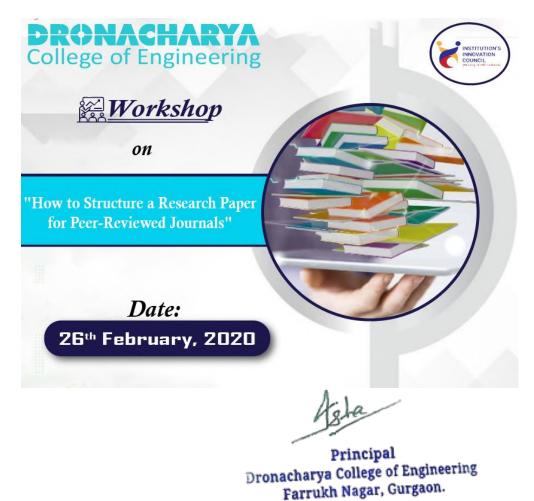
### 26th February 2020

The **Research and Development Cell** of **Dronacharya College of Engineering, Gurugram** organized an insightful workshop on **"How to Structure a Research Paper for Peer-Reviewed Journals"** on **26th February 2020**. A total of 48 students and faculty members attended the session.

The workshop aimed to enhance the academic writing skills of participants and help them effectively present their research in prestigious peer-reviewed journals. The expert speaker outlined the standard format followed in scientific writing, including **Title**, **Abstract**, **Introduction**, **Methodology**, **Results**, **Discussion**, **Conclusion**, and **References**.

Participants were given practical tips on how to draft each section with clarity and coherence, ensuring that the research paper communicates the key findings and their significance clearly to the reviewers and readers. The session also addressed the importance of following journal-specific guidelines, proper referencing, and ethical considerations such as avoiding plagiarism and ensuring originality.

The resource person emphasized the role of logical flow and evidence-based arguments in strengthening the overall impact of a research paper. The session concluded with an interactive Q&A segment, where the attendees clarified doubts and shared their own experiences related to manuscript writing and journal submissions.



# Workshop on "Ethical Research: Standards and Guidelines"

# 6th December 2019

The **Research and Development Cell** of **Dronacharya College of Engineering, Gurugram** conducted a workshop on **"Ethical Research: Standards and Guidelines"** on **6th December 2019**, attended by 48 participants, including students and faculty members.

The main objective of the workshop was to familiarize participants with the importance of ethical considerations in research and the standards that guide responsible conduct. The expert speaker introduced the fundamental principles of ethical research, including **integrity**, **honesty**, **transparency**, **and respect for participants**.

The session covered topics such as **avoiding plagiarism**, **maintaining confidentiality**, and the **ethical treatment of human and animal subjects** in research. Emphasis was placed on understanding and adhering to **institutional review boards (IRBs)** and the significance of **informed consent**.

Participants were also informed about the **publication ethics**, including proper citation practices and handling conflicts of interest. The workshop concluded with a lively discussion where attendees shared insights and queries regarding ethical dilemmas faced in research.

This workshop proved to be an eye-opener for many and reinforced the significance of ethical conduct in maintaining the credibility and reliability of scientific research.



### Workshop on "Research Design: Planning and Executing Your Study"

# **3rd March 2020**

The Research and Development Cell of Dronacharya College of Engineering, Gurugram organized a workshop on "Research Design: Planning and Executing Your Study" on 3rd March 2020, with 85 participants from various departments.

The workshop aimed to guide participants through the essential aspects of planning and executing research studies effectively. The expert speaker provided an overview of research design, highlighting its importance in shaping the direction and methodology of a study.

The session covered key concepts such as **defining research objectives**, selecting research methods (qualitative or quantitative), and developing hypotheses. Participants learned how to construct clear and measurable research questions, ensuring that their study aligns with the overall goals of the research.

The expert also discussed the significance of **sampling techniques**, data collection methods, and how to interpret findings. The practical application of these techniques was demonstrated with realworld examples to show how to implement them in research projects.

The workshop concluded with a **Q&A session**, where participants engaged with the speaker, clarifying doubts about research challenges. The session proved to be highly beneficial for students and faculty members, equipping them with the tools needed to conduct meaningful and scientifically valid research.



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# Workshop on How to Convert Research into Innovation

### 18th July 2019

The **Research and Development Cell** of **Dronacharya College of Engineering, Gurugram** organized a workshop titled **"How to Convert Research into Innovation"** on **18th July 2019**, attended by **32 participants**, including faculty members and students.

The workshop aimed to bridge the gap between **research outcomes** and their practical application in **innovation**. The expert speaker outlined the steps involved in transforming theoretical research into tangible innovations that could address real-world problems.

Key topics discussed included identifying **market needs**, **validating research ideas**, and converting **research findings** into practical, scalable products or solutions. The session also covered **intellectual property rights (IPR)** and the importance of **patents**, **trademarks**, and **copyrights** in protecting innovative ideas.

Participants were introduced to various tools and resources that can help turn research into **entrepreneurial ventures**. The expert also highlighted the role of **collaborations** and **industry partnerships** in fostering innovation.

The workshop concluded with a **Q&A session**, allowing participants to clarify their doubts and gain valuable insights into the journey of transforming research into innovation. The session was well-received and left the participants motivated to explore innovative pathways for their research work.



### Workshop on Research Methodology

### 6th - 10th May 2019

The **Research and Development Cell** of **Dronacharya College of Engineering, Gurugram** organized a **Workshop on Research Methodology** from **6th to 10th May 2019**, with **36 participants** from various departments. The workshop aimed to provide an in-depth understanding of the essential research methodologies that students and faculty members can apply in their academic and professional projects.

Over the course of five days, the workshop covered key topics, including research design, qualitative and quantitative methods, data collection techniques, and statistical analysis. Participants learned how to formulate research problems, develop hypotheses, and choose the appropriate research method based on the nature of their study.

The expert speaker emphasized the importance of literature review, sample selection, and data analysis techniques in ensuring the validity and reliability of research findings. The session also addressed ethical considerations in research and the proper methods for reporting results.

Through hands-on activities and case studies, the participants gained practical knowledge on applying research methodology in real-life projects. The workshop concluded with a **Q&A session**, allowing participants to clarify their doubts and discuss their research interests. The workshop was highly appreciated for its comprehensive content and interactive approach.



# **Session on Grant Writing and Research Funding Opportunities**

### 07th August 2019

The **Research and Development Cell** of **Dronacharya College of Engineering, Gurugram** organized a session on "**Grant Writing and Research Funding Opportunities**" on **7th August 2019**, attended by **36 participants**, including faculty and students from various departments. The session aimed to equip participants with the essential skills required for writing successful research grant proposals and accessing funding opportunities for research projects.

The expert speaker walked the participants through the entire process of **grant writing**, explaining how to identify suitable funding sources, the key components of a grant proposal, and tips for writing compelling applications. Emphasis was placed on aligning research objectives with the priorities of funding agencies, ensuring that the proposals address relevant issues and have a clear **methodology** and **budget plan**.

Participants also learned about various **research funding opportunities**, including **government grants**, **private sector funding**, and **international research grants**. The session highlighted the importance of **networking** and **collaboration** with other researchers and institutions to enhance the chances of securing funding.

The session concluded with a **Q&A segment**, where participants clarified their doubts regarding the funding process and received valuable insights on improving their grant writing skills. The session was well-received and deemed highly informative.

College of Engineering Session on "Grant Writing and Research Funding Opportunities"	
Date: 7 <sup>th</sup> August, 2019	

### Session on Presentation & Communication Skills for Research

### 19th May 2020

Session on Presentation & Communication Skills for Research Conferences was organized by the Research and Development Cell of Dronacharya College of Engineering, Gurugram on 19th May 2020, attended by 47 participants, including students and faculty members. The session aimed to equip participants with essential skills needed to effectively present their research at academic conferences and communicate their findings to a broader audience.

The speaker, an expert in research communication, discussed the core principles of **effective presentations**, emphasizing clarity, structure, and engaging content. The session also focused on the **use of visual aids**, such as slides, to enhance the delivery of research presentations. Participants were guided on how to structure their research papers, ensuring that key findings were communicated concisely and effectively.

Additionally, the session covered **public speaking techniques**, including how to manage stage presence, use voice modulation, and engage with the audience during presentations. Tips for handling **questions and discussions** post-presentation were also provided to boost confidence.

The session concluded with an **interactive Q&A**, where participants shared their experiences and sought advice on improving their presentation skills. The session was well-received and highly beneficial for participants preparing for research conferences.

