



SELF STUDY REPORT

FOR

3rd CYCLE OF ACCREDITATION

DRONACHARYA COLLEGE OF ENGINEERING

FARRUKHNAGAR GURGAON HARYANA

123506

ggnindia.dronacharya.info

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Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Dronacharya College of Engineering, established in 1998, affiliated to Maharshi Dayanand University, Rohtak and Approved by AICTE, New Delhi . College is recognized in the band "EXCELLENT" under the category "Colleges/Institutes (Private / Self-Financed) (Technical)" in Atal Ranking of Institutions on Innovation Achievement(ARIIA) 2021, a flagship program of the Ministry of Education, Government of India.

College offers two programme Bachelor of Technology and Master of Technology.

College has an aim of providing quality higher education to bridge the gap between Academia and Industry. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis.

Vision

To impart Quality Education, to give an enviable growth to seekers of learning, to groom them as World Class Engineers and Managers competent to match the expanding expectations of the Corporate World has been our ever enlarging vision extending to new horizons since the inception of Dronacharya College of Engineering.

Mission

We, at Dronacharya College of Engineering, are absolutely committed to serve the society and improve the mode of life by imparting high quality education in the field of Engineering and Management catering to the explicit and implicit needs of the students, society, humanity and industry. 'Shiksha evam Sahayata' i.e. Education and Help are the two words etched on our banner soaring higher year after year. Our goal is to continuously improve the healthy learning environment and facilities being provided to the students to achieve academic excellence for employability as world class Technocrats and Managers, apart from making them noble human

beings of a nation growing from strength to strength, dispelling the darkness of ignorance and ameliorating the society by means of philanthropic endeavours.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- The college has a vast library comprising of books, magazines and journals.
- College has subscription of many e-resources for study.
- Classrooms and seminars are supported with all the ICT enabled tools.
- The laboratories are well equipped with all the modern machineries.
- College has many Center of Excellence for gaining advance knowledge of the subject concerned.

- College has a good placement record.
- College has a well-established IIC which promotes the culture of Innovation and Entrepreneurship.
- College has a vast auditorium.
- College has experienced and diversified faculty members.
- Students and faculty members participate in many International conferences for paper presentation and publication.
- Development of students is done through participation in many events, workshops and certification courses.
- College has facility of indoor and outdoor playground.

Institutional Weakness

- The college is situated in the outskirts of the city, so there is problem of reachability.
- Even though good numbers of research projects are undertaken by the institute, there is unequal contribution from all the departments.
- Not all the Faculty members are Ph.D holders.
- Greater number of behavioral problems in students
- Lack of Research publication in Scopus, SCI and Web of Science high impact factor journals

Institutional Opportunity

- MoU with industry partners and academic as well as research organizations.
- Increased demand for technical education in society.
- Emerging priority to research and innovation
- Positive approach from government towards educational reforms such as innovation and research.
- Growing industries in the field of engineering domain where students might be placed.
- Increased focus on Inter Multi-disciplinary approach for better learning
- Tie-up with more Center of Excellence.

Institutional Challenge

- To equip the students to meet the standards expected by the engineering professionals.
- Motivating students to carry innovation and research work.
- Rapidly changing technology and the industrial requirements ask for enhancing the employability of students for which extra measures need to be taken.
- Increased in -disciplined behavior amongst students.
- College location is rural and accessibility means to the institution are limited.
- To extract research funding and other grants from Government sources.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The college is affiliated to MDU, Rohtak and follows the curriculum of the affiliating University. The curriculum is implemented in an effective manner. Lectures and Lab classes are taken up as per the planner made by the HOD in consultation with the faculty members. PPT of each topic is uploaded on college website also. To ensure quality education many Center of Excellence are there in the college. IIT Bombay lectures, NPTEL videos, Question Bank of respective subject are also uploaded on college website. Before the beginning of each semester, Academic Calendar is prepared. In each semester, two sessional examinations and pre-university examination are held. The college is well equipped with the advanced ICT enabled tools to ensure effective curriculum delivery. The laboratories have all the modern and latest equipment for advanced learning. The college has a vast library which has almost all type of books, magazines and journals available for reference. Institute has taken subscription of many E-content resources required for advancing in the studies and studying beyond classroom hours. Online webinars and sessions are also taken up, so that students are aware of the present market trends.

The institute adheres to the Academic calendar prepared bi-yearly at the beginning of the academic session, the students are apprised of the academic calendar and the same is uploaded on the college website and is broadcasted to students and parents also. It is displayed on notice boards and at strategic locations as well.

The curriculum also incorporates cross-cutting issues relevant to gender, environment and sustainability, human values and professional ethics. The college takes efforts for integration of ethical and human values through extra-curricular activities also. Many clubs are formed where both genders actively participate in the events. A compulsory core course on Environment studies, Professional Ethics and Values is included in the curriculum. Awareness camps related to social causes, seminars, workshops, guest lectures, industry visits and field excursions are organized so as to make the all-round development of the students.

Teaching-learning and Evaluation

Dronacharya College of Engineering focuses on all-inclusive, intellectual, social, emotional and aesthetic development of the students. Institute follows well-structured teaching learning and evaluation methodologies.

With the intention to develop critical and innovative thinking, student centered pedagogies are evolved. College uses the latest ICT tools and smart boards for making teaching-learning effective such as Microsoft Teams, ZOOM, Google Meet, PPT, Video clippings, Audio system, smart boards, etc. Laboratories are upgraded time to time keeping in mind the latest trends and expectations of the market. Many Center of Excellence are opened in the college for enhancing students' learning. Seminar, workshop, guest lecture are organized for the students to give practical exposure. Teaching-learning methods adopted by the faculty members include Experiential Learning, Participative Learning, Interactive Method, Project-based Learning, etc. Focus upon practical classes is laid down to make the students learn by doing themselves. Remedial classes are aimed at supporting learners for clarification of doubts. Slow-learners are also taken care of by the faculty members for settling the doubts. Every Saturday, faculty is available in the campus for settling the doubts of the students.

Regular assessment of students are done by daily Home Assignments, Class Assignments, Seminars and Group Discussions, Quizzes, Class Tests, Projects, Internships, Viva-voice examinations and attendance. The outcome is judged by having a complete evaluation of the student on all parameters. Sessional Examinations and pre-university examination are conducted by the institute to assess the student learning.

The college has a well-organized mechanism for settling of examination related grievances. The student can approach the faculty or College Examination committee to redress the examination related grievance as per the requirement and jurisdiction of the grievance. If any student feels that the marks given to him/her in any paper are not fair, he/she can apply for revaluation to the examination committee member. The students should apply within a week after declaration of the result. The entire mechanism of grievances related to External Examination is handled by the Affiliating University as per University rule and regulations and it is time bound.

Research, Innovations and Extension

Dronacharya College of Engineering focuses on its research-based innovative outreach activities for its students. The faculty and students are motivated to garner research achievements in the form of publication and patents. College has received grants from government/non-government agencies for research projects.

The college has established Institution Innovation Council (IIC) under the guidelines of Ministry of Education (MoE). Students are encouraged to present their innovative working project models & products in many internal and external project competitions. The faculty & students are encouraged to take up research & developmental activities. The college has separate R & D Department to promote innovation among students and motivate students to create real time project. Many students have brought laurels for their innovative projects and models and have participated in paper presentation domestically as well as internationally. The college has signed many MoU's with national and international agencies to facilitate student's advance learning.

The institute organizes many extension activities in the neighborhood community and in the institute premises to benefit the society at large and develop a tendency among students to improve the quality of life in the surroundings. The college promotes participation of students in different co-curricular activities such as sports meets, youth festival, group discussion, quiz competition etc. To make students aware of social issues, students are encouraged to participate in programs like Environmental Awareness, Personal Health and Hygiene, Diet awareness, Road Safety, Tree Plantation, Plastic eradication, Programme on female feticide, Voters awareness, Health check -up camps, Blood donation camps, Swachh Bharat initiatives, awareness programs on AIDS prevention, Environmental pollution etc. Programs like rainwater harvesting and conservation of drinking water, tree plantation drive, sowing the seeds in the nearby areas are taken up as part of environment consciousness and encouraging the community to initiate steps in this regard. Blood donation camps are also organized in the College whereby students and staff donate blood for the good cause.

Infrastructure and Learning Resources

Having a background of extensive green cover, Dronacharya College of Engineering, Gurugram has artistically designed building blocks which are architecturally striking and receptive to environmental concerns. A deliberate attempt has been made to preserve the natural habitat as much as possible.

- Classrooms: the college has well-ventilated ICT enabled classrooms, spacious seminar halls with all the modern teaching-learning aids.
- Auditorium: a well-equipped auditorium with more than 500 seating capacity is available in the college.
- Laboratories: labs of DCE are well equipped with all the modern machineries and apparatus to facilitate

student's learning.

- Computing facilities: computer labs with high speed internet facility are available in the campus.
- Library: the college has a vast library with books available to cater all students and faculties requirement of learning.
- CCTV: at all the prominent locations inside the campus and in the buses, CCTVs are installed for the security of students and staff.
- Sports Ground: the college has vast indoor and outdoor playgrounds supported with all the sports equipment.
- Roof-top Solar Plant: is available in the college to conserve energy resources.
- Canteen: the college has a canteen whereby delicious food is served keeping in view the hygiene conditions.
- Clubs: the college has formed many clubs like Robotic, Coding, NSS, Sports and Cultural to enhance student's learning and for recreational purposes.

Student Support and Progression

The college always puts efforts towards enhancing students' learning and progression. Every year approximately 10% students are benefitted by the scholarship/freeships provided by the government and government aided agencies. The college provides all kind of assistance to its students in terms of adequate mentorship and financial aid. Students are motivated towards participating in various national and international level project competitions and conferences. The college also offers Book Bank facility to its students for issuing of the books which could be retained by the students for the entire semester. To make student industry ready the college organizes many personality and communication related classes. Guidance for MOOC and NPTEL classes is offered by the college. Classes for competitive examination preparation like GATE classes, NCAT classes and IELTS preparation classes are run by the college on a regular basis. Best performing institute award is received by the college by NCAT. College has been listed under Band Excellent in ARIIA Ranking. Many career guidance sessions and alumni connect programs are also organized by the college for the benefit of the students. The college facilitates student's representation and engagement in various administrative and co-curricular activities. Students are also made members of the various disciplinary committees.

Grievances related to matters of concern such as sexual harassment and ragging are also sorted within the time frame by the grievance redressal committee.

The progress of the students is measured through sessional exams, pre-university exams, viva-voice, practical examinations, quizzes and through different activities. The detailed report of the students is shared with the parents by the mentors in the PTM held twice a year. Career counseling sessions are also taken by the mentors. To make students industry-ready, college is running Centers of Excellence and has also signed MoU's with various agencies. Institute is running different clubs: Sports Club, Cultural Club, Technical Language Society, Robotics Club, Coding Club and NSS Club.

Students participate in sports and cultural activities held throughout the year within the campus or outside the campus.

All the information pertaining to upcoming competitions and events is made available for the students.

The Training and Placement Cell of the college works rigorously towards placement of the students.

Governance, Leadership and Management

The governance of the institution is reflective through its vision & mission statements. The empowered team of the institute involves Principal, Registrar, Head of Departments, Teaching-staff, IQAC committee, Head of different committees, non-teaching and supporting staff, student representative and stakeholders. Meetings pertaining to matters of concern are regularly held. The principal is the administrative head of the college. The Principal monitors the mechanism regarding administration and academic process and ensures proper functioning of the policies, rules and action-plans of the institute. Many committees are formed to support the workings of the college. These are Examination cell, grievance redressal, anti-ragging committee, NSS, placement cell, sports committee, cultural and literacy committee, internal examination committee, etc.

Finance committee deals with the finance received for the various grants and amount received from other sources for overall development and maintenance of the college.

The college follows decentralization and participative management in framing all policies and guidelines by involving faculty, staff and students. The Registrar, HOD's, faculty members and staff members are involved in defining the policies and procedures, making guidelines and rules/regulations pertaining to admission, placement, discipline, grievance, counseling, training & development, etc. Performance appraisal is done as per the appraisal policy of the college. The overall planning and development of the institution is done by the governing body under the guidance of Chairman.

Institutional Values and Best Practices

Institutional Values:

Shiksha evam Sahayata: the college works towards promoting quality education and also caters to the explicit and implicit needs of the students, society, humanity and industry. Social commitment is one of the founding stones of the college.

Excellence: the college work towards promoting excellence in all the activities of the students and the staff.

Inclusiveness: the college endeavors towards promoting equality amongst all genders irrespective of the caste, color, religion, region and language.

Integrity: the college acts in accordance with the academic and ethical standards.

Innovation: the college puts efforts towards creating a culture of creativity and innovation.

Globalization: the college consistently lays efforts to uplift the standard of education provided to meet the global trends and standards.

Best Practices:

Fostering Employability Skills: the college puts efforts to make the students industry ready and bridge the gap between industry and academia. For this, measures are taken by the college to build student's critical thinking, problem solving skills, written and verbal communication skills. Numerous career counseling sessions, personal development workshop for employability skills, guest lectures on aptitude and soft skills training, seminar on how to prepare for an interview, alumni connect programmes, GATE, NPTEL, IELTS classes and placement preparation sessions are held in the college. The institute has MOUs with numerous industries in this context. The college is also a place for various center of excellence for the promotion of excellence in education. The institute has also established an Institution's Innovation Council (IIC) wherein students are taught to carry research related activities and thus making them self-sufficient and also helping in creation of jobs in the market.

Project Based Learning: Project-based learning (PBL) is part of the curriculum. The curriculum provides the flexibility for the faculty and teacher to opt for project-based learning and allows them to integrate several different concepts. Participation in project contests, hackathons, and programming contests are also encouraged. All the modern machineries are available in the laboratories in order to nurture the students' practical knowledge.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	DRONACHARYA COLLEGE OF ENGINEERING
Address	Farrukhnagar Gurgaon Haryana
City	Farrukhnagar
State	Haryana
Pin	123506
Website	ggnindia.dronacharya.info

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Brij Mohan Kumar Prasad	0124-2375502	9910380104	0124-2375503	principal@ggnindia.dronacharya.info
IQAC / CIQA coordinator	Ashima Mehta	0124-2375501	9803505262	0124-2375503	ashima.mehta@ggnindia.dronacharya.info

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details

State	University name	Document
Haryana	Maharishi Dayanand University	View Document

Details of UGC recognition		
Under Section	Date	View Document
2f of UGC	04-05-2010	View Document
12B of UGC	04-05-2010	View Document

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	02-06-2022	12	Yearly Approval

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	Yes
If yes, name of the agency	Atal Ranking of Institutions on Innovation Achievements (ARIIA) Ministry of Education (MoE), Govt. of India
Date of recognition	29-12-2021

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Farrukhnagar Gurgaon Haryana	Rural	10.4	22386

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Computer Science And Engineering	48	XII PASSED	English	180	180
UG	BTech,Mechanical Engineering	48	XII PASSED	English	60	8
UG	BTech,Computer Science And Information Technology	48	XII PASSED	English	60	60
UG	BTech,Electronics And Communication Engineering	48	XII PASSED	English	60	22
UG	BTech,Electrical And Electronics Engineering	48	XII PASSED	English	30	21
UG	BTech,Electronics And Computer Engineering	48	XII PASSED	English	30	30
UG	BTech,Robotics And Automation	48	XII PASSED	English	60	2
UG	BTech,Cse Iot And Cyber Security	48	XII PASSED	English	60	60
UG	BTech,Cse Artificial Intelligence And Machine	48	XII PASSED	English	120	120

	Learning					
PG	Mtech,Computer Science And Engineering	24	B.Tech	English	24	4
PG	Mtech,Mechanical Engineering	24	B.Tech	English	24	0
PG	Mtech,Electronics And Communication Engineering	24	B.Tech	English	24	1
PG	Mtech,Information Technology	24	B.Tech	English	24	0

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	17				33				91			
Recruited	10	7	0	17	17	16	0	33	23	68	0	91
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				1			
Recruited	0	0	0	0	0	0	0	0	1	0	0	1
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				30
Recruited	20	10	0	30
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				5
Recruited	4	1	0	5
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				70
Recruited	63	7	0	70
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				4
Recruited	3	1	0	4
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	7	7	0	6	8	0	2	5	0	35
M.Phil.	0	0	0	0	1	0	0	0	0	1
PG	3	0	0	11	7	0	21	63	0	105
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties					
Number of Visiting/Guest Faculty engaged with the college?	Male		Female		Total
	0	1	0	1	
	0	1	0	1	

Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	250	163	0	0	413
	Female	62	44	0	0	106
	Others	0	0	0	0	0
PG	Male	4	0	0	0	4
	Female	1	0	0	0	1
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Category		Year 1	Year 2	Year 3	Year 4
SC	Male	9	3	7	6
	Female	1	0	0	0
	Others	0	0	0	0
ST	Male	0	0	0	2
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	49	58	76	53
	Female	5	2	9	3
	Others	0	0	0	0
General	Male	243	216	133	169
	Female	54	55	38	34
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		361	334	263	267

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	Dronacharya College of Engineering, Gurugram provides many engineering disciplines to study. Various courses that are provided as a field of study for its students include Computer Science Engineering, Electronics & Communication Engg., Mechanical Engineering and Electrical & Electronics Engg. The college follows a 'whole'/'comprehensive' method of learning whereby the students are taught any topic or text by way of integrating books with examples. Each concept is delivered by the experienced faculty members with the use of modern education related gadgets. The students are allowed to carry many experiments on their own as well as with the support
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	<p>of the mentors. The college also integrates its courses with other courses to follow an interdisciplinary approach. The engineering courses like Computer Science and Information Technology, Electronics and Computer Science Engineering, Robotics & Automation are a few engineering disciplines that college has introduced to follow an interdisciplinary approach. In addition to the text available in the books, students are motivated to enhance their skills by improving logical and critical thinking skills, soft skills and analytical learning skills. Students are also motivated to participate in various competitions, seminars, workshops to learn from what is mentioned in the text books. They are also given proper breaks for carrying research work activities.</p>
<p>2. Academic bank of credits (ABC):</p>	<p>Dronacharya College of Engineering is an affiliated institute of MDU,Rohtak. The institute is running regular programmes and courses in the curriculum scheme are delivered. In the direction of Academic Bank of Credits the guidelines issued by the affiliating university is being implemented by the institute.</p>
<p>3. Skill development:</p>	<p>Dronacharya College of Engineering ensures all inclusive learning. Efforts are laid upon to enhance the skills of the students. Various skill enhancement courses, workshops and seminars are conducted by the college for improving the overall personality of its students. These courses are designed in such a way that they help in improving skill levels of students in various domains such as cognitive skills, analytical skills, employable skills, communication skills and critical and logical thinking skills. The students are also advised and motivated to participate in various intra and inter college level competitions. Skill development activities such as soft skill training, organizing various cultural and social activities such as Yoga, dance and singing competitions, coding competitions/hackathons, ect. are also organized throughout the year. This helps in improving their inter-personal and technical skills. The college has in-built various clubs viz: sports club, cultural club, robotic club, technical language society and coding club. Students get the opportunity to organize and participate in the events conducted under these clubs to hone their skills. Various MoUs are also signed with government and several big organizations which provide free access to many digital learning platforms</p>

	and pursue many certification courses. For refining the skills related to critical and analytical thinking, Institution has also developed an IIC which motivates the students to pursue activities related to innovation and research.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	The safeguarding and advancement of India's cultural wealth is considered a high priority for the college, as it is truly important for the nation's identity as well as for its Economy. In this regard appropriate integration of the Indian Knowledge system in the curriculum is there. Equal importance is given to Hindi language as well. Faculty members teach in both the languages English as well as Hindi. Institute celebrates Hindi Diwas in campus. Students are also allowed to express their views in Indian Language also.
5. Focus on Outcome based education (OBE):	Dronacharya College of Engineering delivers the curriculum designed by its Affiliating University keeping in mind the learning outcomes of the courses. The PEOs for all the disciplines of engineering are designed carefully catering to local, regional and global needs and are also aligned with institutional vision and mission. College strives to apply knowledge of computing, mathematical foundations, algorithmic principles, and engineering theory in the modeling and design of systems to real-world problems. Students are motivated to analyze the problem, identify, formulate and use the appropriate computing and engineering skills for obtaining its solution. The students also identify, classify and describe the performance of systems and components through the use of analytical methods and modeling techniques. They are also taught to investigate and define a problem and identify constraints including environmental and sustainability limitations, health and safety and risk assessment issues. Throughout the year, various seminars, workshops and interactive sessions are held in and outside the college to ensure overall development of the students.
6. Distance education/online education:	During the time of COVID-19 pandemic, the college had a very smooth transition from physical classes to online classes. The college does not compromised with the learning of students at any cost. The faculty members were directed to make use of the online platforms like Microsoft Team, ZOOM and Google

Meet to make the students learn. The learning was not hampered at any cost. Even the students who were in their hometown easily learnt the technical skills and enhances the communication skills. Virtual labs were also created in the institution wherein students can practice their theoretical knowledge. Course content is also available in different languages. Digital learning is promoted by the institution even after the pandemic was over. Even after the Covid-19 crisis, focus was laid upon the learning of the students in the hybrid mode. Additional resources in the form of expert talks, seminars, alumni meets, workshops were also taken up in the form of webinars.

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	YES https://ggnindia.dronacharya.info/dce-nss-club/Electoral-Literacy-Club.aspx
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	Yes, the ELC is functional in nature and actively contributes towards delivering education related to electoral process of registration and voting in an apolitical, neutral and non-partisan manner. https://ggnindia.dronacharya.info/dce-nss-club/Electoral-Literacy-Club.aspx
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	Every year, National Voter's Day and Vigilance awareness week is celebrated in the college. Many programs and initiatives are undertaken by the ELC's during the last five years that includes • Awareness programs in the nearby areas to awaken the public for casting their votes. • Guest lectures in the college to make the students aware for their voting rights.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.	• Awareness programs were organized in the nearby areas to awaken the public for casting their votes. • College conduct essay writing, debates, poster presentation, elocution, and other programs which create an awareness regarding electoral procedures. • College strives to develop a culture of electoral participation and maximize ethical voting and follow

	<p>the principle 'Every vote counts' and 'No Voter to be Left Behind'.</p>
<p>5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.</p>	<p>Students are advised for the registration process and the mandatory documents for the registration through various awareness camps and guest lectures. We also conduct essay writing, debates, poster presentation, elocution, and other programs which create an awareness regarding electoral procedures.</p>

Extended Profile

1 Students

1.1

Number of students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
361	334	263	267	403
File Description		Document		
Institutional data in prescribed format		View Document		

2 Teachers

2.1

Number of teaching staff / full time teachers during the last five years (Without repeat count):

Response: 266

File Description	Document
Institutional data in prescribed format	View Document

2.2

Number of teaching staff / full time teachers year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
161	152	170	178	186

3 Institution

3.1

Expenditure excluding salary component year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
504.32	443.18	565.88	670.71	793.97

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

Response:

College is affiliated to MDU, Rohtak and the change in curriculum is being done by the university. Representatives of the college put their point of view in all meetings held at MDU Rohtak regarding the development of curriculum. The institution imparts quality education to the students by optimal utilization of resources. The institution has developed a structured and effective implementation of the university curriculum. Before the beginning of each semester HOD's from each department ask their respective faculties to prepare power point presentation of each subject that is uploaded on college website. Laboratory manual is also prepared by the faculties. To ensure quality education many NPTEL videos, IIT Bombay lectures are also uploaded on college websites. Question Bank of respective subject are prepared by the faculty and uploaded on the website that helps students during the university examinations. To guide students for higher studies GATE class are also conducted by the faculty and question for the same are also provided to the students. Management ensures uniform procedure is followed throughout the campus. Before the beginning of each semester, Academic Calendar is prepared as per the MDU, Rohtak academic schedule and the requirements at the department level are formed. In each semester, two sessional examinations and pre-university examination are held. Based on the marks of the students improvement classes are also conducted by the faculties so that students can score well in their university examinations. Every Saturday faculty conduct doubt clearing session that helps students in better understanding of subjects. Parents meeting are convened every semester once or twice to get the feedback about the progress of the wards.

Latest technologies are incorporated to meet the industry standards. The college is well equipped with the advanced learning tools to ensure effective curriculum delivery. The laboratories have all the modern and latest equipment's for advanced learning. The college has a vast library which has almost all type of books and journals available for reference. E-content resources are also available for advancing in the studies and studying beyond classroom hours. Innovative learning to all students is provided by conducting through internships, projects, and field trips.

File Description	Document
Upload Additional information	View Document

1.2 Academic Flexibility

1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

Response: 57

File Description	Document
Institutional data in the prescribed format	View Document

1.2.2 Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

Response: 80.47

1.2.2.1 Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
332	315	185	173	305

File Description	Document
Institutional data in the prescribed format	View Document

1.3 Curriculum Enrichment

1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the Curriculum

Response:

The mission statement of Dronacharya College of Engineering, Gurugram clearly states that DCE is absolutely committed to serve the society and improve the mode of life by imparting high quality education in the field of Engineering and Management catering to the explicit and implicit needs of the students, society, humanity and industry. 'Shiksha evam Sahayata' i.e. Education and Help are the two words etched on our banner soaring higher year after year.

DCE curriculum incorporates cross-cutting issues relevant to gender, environment and sustainability, human values and professional ethics and leads to a strong all round value-based holistic development of students.

Activities related to Gender Sensitivity and Human values

Various activities are organized by the college all the year round towards gender sensitization. The solution to issues pertaining gender sensitivity are accomplished through conducting many events. Various awareness sessions are held in the college like breast cancer awareness session, AIDS awareness,

awareness session on prevention of Sexual harassment, etc. for the benefit of the students and the society. Celebration of National Girl Child Day, Women's day is celebrated with great enthusiasm. In the nearby areas, various camps were also organized like sanitary napkin distribution camp and cloth donation camps. Various health checkup camps are organized and counseling is also offered to the students on related topics. Blood Donation Camps are a regular exercise working towards the big social cause. Every year, college celebrates Republic Day, Independence Day, Martyr's Day and Gandhi Jayanti with great zeal. The college takes efforts for integration of ethical and human values through extra-curricular activities. Many games and clubs are formed where both genders actively participate in the events. All students, irrespective of any gender bias are given an equal opportunity for attending any conferences, events, seminars and workshops.

Environment and Sustainability

A compulsory core course on Environment Studies is included in the curriculum. Students are sensitized and encouraged to work towards helping society and environment. Environment awareness camps, seminars, workshops, guest lectures, industrial visits and field excursions are organized. Environment Day, Earth Day and Water Day are annually celebrated. In Swachhta Pakhwada, students actively participate in making the surroundings clean. On the occasion of forest day and environment day trees were also planted inside and outside the campus to save the environment.

A compulsory course on Professional Ethics and Values, Organizational Behaviour, Environmental Sciences, Constitution of India is also offered to the engineering students. Students are also required to choose some open elective courses like Disaster Management, Essence of Indian Traditional knowledge, Air and Noise Pollution and Control, Engineering Ethics, Solid & Hazardous waste management, Renewable Energy Resources, etc. and are effectively transacted in the curriculum.

The Institute also has a Model Code of Ethics to curb various malpractices.

1.3.2 Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)

Response: 100

1.3.2.1 Number of students undertaking project work/field work / internships

Response: 361

File Description	Document
Institutional data in the prescribed format	View Document

1.4 Feedback System

1.4.1 Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website

Response: A. Feedback collected, analysed, action taken& communicated to the relevant bodies and feedback hosted on the institutional website

File Description	Document
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Enrolment percentage

Response: 40.8

2.1.1.1 Number of seats filled year wise during last five years (Only first year admissions to be considered)

2021-22	2020-21	2019-20	2018-19	2017-18
361	334	263	267	403

2.1.1.2 Number of sanctioned seats year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
756	756	786	816	876

File Description	Document
Institutional data in the prescribed format	View Document
Document related to sanction of intake from affiliating University/ Government/statutory body for first year's students only.	View Document

2.1.2 Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

Response: 19.4

2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)

2021-22	2020-21	2019-20	2018-19	2017-18
64	63	92	64	104

2.1.2.2 Number of seats earmarked for reserved category as per GOI/ State Govt rule year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
378	378	393	408	438

File Description	Document
Institutional data in the prescribed format	View Document

2.2 Student Teacher Ratio

2.2.1 Student – Full time Teacher Ratio (Data for the latest completed academic year)

Response: 2.24

2.3 Teaching- Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences and teachers use ICT- enabled tools including online resources for effective teaching and learning process

Response:

The institution adopts modern pedagogy to enhance teaching-learning process. For enhancing learning experiences, the faculty members keeps on finding many innovative ways for the ease and interest building of the students. Faculties adopt many ways for delivering the academic knowledge to the students; for example, lecture delivery method, interactive method which includes two way communication, project and field work method, digitally delivered course content, experiment/hands on learning method, etc. Teaching and learning activities are made productive by adopting these practices. Numerical problems are explained by way of chalk and board method, while use of power point presentations and other ICT Enabled tools are used to deliver other course contents.

Some Student centric methods are given below:

Project methods: students are stimulated to make projects in their interest areas. Each student on the campus is assigned a mentor. Project method gives the students an opportunity of expression of thoughts and to convert ideas into reality. Each student has to compulsorily submit mini project and major project as per the requirement of syllabi. Case studies, analysis and reasoning, quizzes, research activities, are some of the other project based methods which enhances learning of the students.

Interactive methods: The faculty members make learning interactive with students by motivating student participation in debates, group discussion, role-play, subject quiz, data analysis, educational games, discussions and questions and answers on current affairs, etc.

Participative learning: students are encouraged to participate in various competitions, national and

international conferences, workshops and seminars. Student's participation is also sought in decision making at various levels. Various clubs are also formed wherein students participate in various activities and enhance their personality. They are the member participants in various committees at the institutional level. Various outreach activities are also celebrated and observed like fresher's party, farewell, sports meet, girl child celebration, women's day celebration, etc. wherein participation of the students are seen.

Experiential learning: Experimental/Laboratory method is used to acquaint the students with the facts through direct experience. Students verify the facts and laws of the subject with the help of experiments. Students take interest and learn things via experiential learning. Institute also has IIT Bombay and IIT Kharagpur Remote centers through which students have the opportunity to grasp the outcomes of the experiments being carried there.

ICT Enabled Teaching: ICT enabled teaching includes Wi-Fi enabled class rooms with LCD, Language Lab, Smart Class rooms, etc. The institution has the essential equipment to support the faculty members and students in attainment of learning objectives. The auditorium and the conference room are digitally equipped for conducting conferences, guest lectures, seminars, workshops and alumni interaction programs. The Library is supported with a wide range of e-resources. Students have the access to digital content provided in the form of e-books, e-journals and e-magazines. Online classes on MS Teams, Google Meet and ZOOM were successfully taken up during the COVID pandemic.

2.4 Teacher Profile and Quality

2.4.1 Percentage of full-time teachers against sanctioned posts during the last five years

Response: 100

2.4.1.1 Number of sanctioned posts year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
161	152	170	178	186

2.4.2 Percentage of full time teachers with NET/SET/SLET/ Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)

Response: 21.96

2.4.2.1 Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
42	32	38	37	37

File Description	Document
Institution data in the prescribed format	View Document

2.5 Evaluation Process and Reforms

2.5.1 Mechanism of internal/ external assessment is transparent and the grievance redressal system is time- bound and efficient

Response:

The Mechanism of Internal Assessment is transparent, time-bound and efficient. The mechanism developed for Internal Examination is as under:

The college forms an Examination Committee to conduct internal examination every year. The date of the internal examination is decided in the Academic council meeting and finalized as per the tentative dates prescribed by the affiliating university academic calendar in every semester. Date of internal examinations are displayed on notice boards and are also mentioned in the academic calendar.

Accordingly, the Examination committee makes its roadmap to conduct the internal examination. Question papers of Sessional Examination/ Internal Assessment are set based on Course outcomes and instructions by heads of the department. Any changes in the evaluation process will be communicated to students and faculty through circulars.

Syllabus for internal assessment is communicated to students well in advance. The internal marks are displayed on college website. College has a Grievances Redressal Cell which looks after grievance related to the examination. If any discrepancy like mistakes in question paper, mark allocation, correction is noticed by the students, the concerned faculty member will resolve the discrepancy, and the necessary corrections will be made. If a student is not satisfied with the marks awarded even after resolved by the faculty member, then he may represent the same to the HOD concerned. All such representations are taken positively and are reassessed by another faculty member if necessary.

External examination is conducted by affiliating university. If students have grievances related to evaluation of university marks students can go for re-evaluation

Theory subjects are assessed through:

- Two Sessional Examinations for each Semester.
- University external Examination.
- Assignments
- Seminar

Practical subjects are assessed through

- Two internal tests.
- University external lab exam.

File Description	Document
Provide Link for Additional information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website

Response:

Program Educational Objectives (PEO) of the Institute:

- Engineers will practice the profession of engineering using a systems perspective and analyze, design, develop, optimize & implement engineering solutions and work productively as engineers, including supportive and leadership roles on multidisciplinary teams.
- Continue their education in leading graduate programs in engineering & interdisciplinary areas to emerge as researchers, experts, educators & entrepreneurs and recognize the need for, and an ability to engage in continuing professional development and life-long learning.
- Engineers, guided by the principles of sustainable development and global interconnectedness, will understand how engineering projects affect society and the environment.
- Promote Design, Research, and implementation of products and services in the field of Engineering through Strong Communication and Entrepreneurial Skills.
- Re-learn and innovate in ever-changing global economic and technological environments of the 21st century.

Programme Outcome

Over completion of the Course our graduates will have ability to:

- Apply knowledge of computing, mathematical foundations, algorithmic principles, and engineering theory in the modeling and design of systems to real-world problems (fundamental engineering analysis skills).
- Apply and integrate knowledge and understanding of other engineering disciplines to support study of their own engineering discipline.
- Design and conduct experiments, as well as to analyze and interpret data (information retrieval skills). Practical application of engineering skills, combining theory and experience, and use of other relevant knowledge and skills
- Analyze a problem, identify, formulate and use the appropriate computing and engineering requirements for obtaining its solution(engineering problem solving skills).
- Understand the appropriate codes of practice and industry standards.
- Identify, classify and describe the performance of systems and components through the use of analytical methods and modeling techniques.
- Investigate and define a problem and identify constraints including environmental and

sustainability limitations, health and safety and risk assessment issues.

- Communicate effectively, both in writing and orally (speaking / writing skills).
- Understand professional, ethical, legal, security and social issues and responsibilities (professional integrity).
- Understand customer and user needs and the importance of considerations such as Aesthetics.
- Use creativity to establish innovative solutions.
- Adapt to a rapidly changing environment by having learned and applied new skills and new technologies.
- To significantly contribute to delivery of desired component, product, or process.
- Formulate and solve moderately complex engineering problems, accounting for hardware/software/human interactions.
- Recognize the importance of professional development by pursuing postgraduate studies or face competitive examinations that offer challenging and rewarding careers in computing.
- Apply the Knowledge of management techniques which may be used to achieve engineering Objectives within that context.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

2.6.2 Attainment of POs and COs are evaluated. Explain with evidence in a maximum of 500 words

Response:

Each program taught by the faculty to the students has a defined set of program outcomes and corresponding evaluation criteria. The program outcomes are used to provide the quantitative measurement of how well the students have learned. The performance of the students in the examinations during the semester in each subject of study is used to compute the level of attainment of the POs. The designing of POs, are prepared by HOD's in consultation with other faculty members. The detailed PO's are then scrutinized by Principal.

Assessment methods include direct and indirect methods. The process of program outcome assessment by direct method is based on internal tests, laboratory performance, sessional examinations, completion of assignments, participation in workshops, conferences, and competitions and completion of projects in assigned time. Behavioral outcome is analyzed through participation in various events held across the year. Class tests are scheduled by the teachers after completion of each topic and the analysis is done after which the strategy for improvement is made. It helps to measure the attainment of programme outcomes. Some activities like Quiz competition are also held which makes the institution know about the knowledge and information of the students. Slow learners and quick learners are also segregated at this level.

The external assessment method includes semester examination by the affiliating university. Through this assessment, the passing percentage of students is calculated and a detailed analysis of the attainment of POs is carried.

At end of course, feedback on curricular department wise and other aspect from student, faculty and alumni is taken. Student Satisfaction Survey is taken every year to check attainment of program outcomes.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

2.6.3 Pass percentage of Students during last five years (excluding backlog students)

Response: 73.08

2.6.3.1 Number of final year students who passed the university examination year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
313	241	372	337	409

2.6.3.2 Number of final year students who appeared for the university examination year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
339	283	466	522	678

File Description	Document
Institutional data in the prescribed format	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

File Description	Document
Upload database of all students on roll as per data template	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)

Response: 320.28

3.1.1.1 Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
43.55	64.71	113.60	64.64	33.78

File Description

Document

Institutional data in the prescribed format

[View Document](#)

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations, Indian Knowledge System (IKS), including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

Response:

The institute has created an ecosystem for Research and Innovation by recruiting & developing desirable human resource, taking initiative for creation & dissemination of knowledge and establishing state of the art infrastructure. The details are as under:

Promoting Innovation: The College has created an Innovation & Entrepreneurship Development Cell (IEDC) and Institutional Innovation Council (IIC) for promoting innovation & entrepreneurship activities. The formation of IIC is as per the guidelines of MHRD & AICTE. Students are motivated to participate in workshop, sessions organized on entrepreneurship, IPR and innovation. Students are encouraged to present their innovative ideas and project in Idea Competition/Challenge/Hackathon organized by the college or any other college. For initiating research and outreach activities among students, Exposure Visits are organized to Indian Knowledge System (IKS) Centre.

Entrepreneurship & Incubation:

College has IEDC cell and incubation center. The main objective of IEDC is to encourage a spirit of entrepreneurship among students by providing them appropriate infrastructure and facilitating an environment for innovation. IEDC has received grants from DST, EDII Ahmedabad etc

Center of Excellences: The faculty members & students are encouraged to take up research & developmental activities by utilizing the existing resources. Our center of Excellences: Cisco Networking Academy, E-yantra Lab, PCB Lab, Spoken Tutorial (Foss Center), Advance training Center have helped our students to develop necessary skills & develop innovative projects in various domains.

Research Oriented Faculty: The institute recruits dynamic & highly qualified faculty to mentor and channelize the young minds. Institute has taken an initiative to encourage the faculty members to pursue their Ph.D. Faculty is also encouraged to participate in various skill enhancement programs under govt. schemes.

Research infrastructure: The College has a separate Research and Development Cell that motivates faculty members and students to write research projects and publish them in UGC care journals, Scopus indexed journals, web of science. Research Cell also helps to create research culture among faculty members and students.

Collaborations: The College has signed MOUs with number of industry so that our students can get an opportunity to undertake research internship and can work on real-time project development.

File Description	Document
Provide Link for Additional information	View Document

3.2.2 Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years

Response: 52

3.2.2.1 Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
14	20	14	2	2

File Description	Document
Institutional data in the prescribed format	View Document

3.3 Research Publications and Awards

3.3.1 Number of research papers published per teacher in the Journals notified on UGC care list during the last five years

Response: 0.76**3.3.1.1 Number of research papers in the Journals notified on UGC CARE list year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
41	30	48	53	30

File Description**Document**

Institutional data in the prescribed format

[View Document](#)**3.3.2 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years****Response: 0.37****3.3.2.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
16	20	25	22	16

File Description**Document**

Institutional data in the prescribed format

[View Document](#)**3.4 Extension Activities****3.4.1 Outcomes of Extension activities in the neighborhood community in terms of impact and sensitizing the students to social issues for their holistic development during the last five years.****Response:**

The college has a functional NSS Cell and the cell is responsible for carrying activities in the neighborhood. The cell sensitizes its students towards community needs. Through this unit, various extension activities are carried in the nearby areas by the students. Students actively participate in social services. Tree plantation drives, cleanliness drives, awareness programs on eradication of single use plastic, education of girl child, programme on female feticide, Beti Bachao Beti Padhao, health check-up camps, blood donation camps, educating about causes and symptoms of diseases like AIDS, COVID-19, Dengue, Malaria, etc., cloth donation, sanitary napkin distribution, no vehicle day were some of the events carried throughout the year. NSS volunteers address the social issues and contribute towards society by

making the locals aware about many social evils. In addition to NSS unit, all the departments of the college are also conscious towards shaping the students into responsible citizens of the country.

Outcomes observed:

The extension activities carried in the neighborhood areas mentioned above have resulted into positive impact on the students by facilitating learning opportunities, building leadership, community relationship, building responsible citizens, upgrading their self confidence levels, moulding personality, uplifting fitness levels and cultivating the spirit of belongingness and responsibility towards society and country at large.

The outcomes of carrying extension activities in the neighborhood are also manifold. The extension activities have also facilitated community development. These activities have resulted into building a green, clean and hygienic environment, eradicating many social evils, building community relationship, helping the needy people, improving literacy standards, to raise the standard of living of the people in the nearby areas and empowering women.

3.4.2 Awards and recognitions received for extension activities from government / government recognised bodies

Response:

Dronacharya College of Engineering, Gurugram always focuses upon motivating students to actively participate in the extension activities carried in the neighborhood. The students also take interest in participating in such activities. DCE and students of DCE have won certificates and awards for their efforts by the government and government recognized bodies. NSS merit certificates are won by the students for the outstanding efforts laid by the students.

The students have given support services in the neighborhood in the form of Blood Donation Camps, Medical Camps, Cloth Donation Drives, Tree Plantation activities, awareness programs on the social evils, women empowering programs, road safety programs, etc. The college gets appreciation from Rotary Club and NGO's for carrying extension activities.

3.4.3 Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community during the last five years.

Response: 111

3.4.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC etc., year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
29	24	14	24	20

File Description	Document
Institutional data in the prescribed format	View Document

3.5 Collaboration

3.5.1 *Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.*

Response: 79

File Description	Document
Institutional data in the prescribed format	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The Institution has adequate infrastructure and other facilities for,

- teaching – learning, viz., classrooms, laboratories, computing equipment etc
- ICT – enabled facilities such as smart class, LMS etc.

Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)

Response:

Dronacharya College of Engineering, Gurugram is supported with good infrastructural facilities to uplift academic and non-academic areas of the students. The college follows norms laid down by AICTE and affiliating University, MDU regarding infrastructural facilities. The college has a total land area of 10.4 Acres. The college has all the facilities for teaching –learning as shown below:

Classrooms: The institute has adequate number of classroom for conducting the theory classes. They are fully furnished, ventilated, spacious and equipped with LCD projectors to facilitate the teachers to adopt varied teaching methods for interactive learning experience.

Laboratories: The institute has Laboratories with state of the art equipment and machinery for the students to carry practical projects and research works. All laboratories are operational, and well maintained.

Auditorium: The College has a fully air conditioned well-furnished Auditorium fitted with LCD Projector & sound proof Audio-Video facilities. It has a seating capacity of over 450 people where all presentations, group discussions and all other pragmatic plans are organized.

Computing equipment: Institute has sufficient number of computers. All computers are equipped with high internet speed.

ICT Tools: the college is having all the ICT enabled tools viz: projectors, LCD's, printers, scanners, smart classrooms, smart boards, mic, sound system, Library Automated System, etc. A well-equipped Library with more than 600 computers are available in the college for supporting students learning.

The college also has vast playground for Co-curricular & Extra-curricular activities. All indoor games equipment are also available in the college for students relaxation. At Institute, various clubs are formed like Sports, Cultural, Technical Language, Coding and Robotic Club. Institute organizes farewell party, fresher party, women day celebration, International Yoga Day, Annual Sport Meet, etc. to make the students socially connected.

Facilities for Cultural activities:

There is a recreational hall inside the premises. Numerous musical instruments viz: drums, guitar, keyboard, flute, mics, etc. are available for the use of students. Certain cultural activities which are organized round the year are: Fresher's party, Women's day, Teacher's day, etc.

Students also take part in nukkad natak, fetes, talent hunt competitions like singing and dancing competitions, idea presentations, creative writing competitions, poetry competition, poster making competitions, etc.

Facilities for Sports:

The institute has indoor and outdoor play grounds inside the college premises for all types of games. Sports club is also formed with the objective of participation of all without any gender bias. All types of sports equipment are available in the campus which could be utilized by the students to their fullest.

Annually sports week is organized in the campus. It covers competitions like cricket tournaments, football matches, volleyball, badminton matches, table tennis etc.

Yoga:

Yoga is conducted in meditation Hall every morning. Students practice Yoga in the zero period and gain the necessary energy required throughout the day. Each year Yoga Day is celebrated with maximum participation.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

4.1.2 Percentage of expenditure for infrastructure development and augmentation excluding salary during the last five years

Response: 7.79

4.1.2.1 Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
4.91	45.45	18	61.01	102.60

File Description	Document
Institutional data in the prescribed format	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

Response:

Dronacharya College of Engineering, Gurugram is a prominent college at Gurugram imparting education in the field of Engineering since 1998. The facilities provided in the institution very well cater the needs of the students and faculty members. The college has a vast library having a seating capacity of 200 heads. The library has a reading hall and separate computers for students to access e-journals. The library is continuously updated in terms of latest books, journals and e-contents.

It consists of 34000+ books, approximately 150 journals and a huge collection of magazines. College also has taken subscription of digital resources to facilitate learning. The library is automated with digital facilities using Integrated Library Management System (ILMS). The details of the same are:

- **Name of ILMS software:** E-granthalaya 3.0
- **Nature of automation (fully or partially):** Fully
- **Version:** 3.0
- **Year of Automation:** 2005

The students can get access of the library resources till the college hours. Students and faculty members regularly visit the library for study purposes.

File Description	Document
Provide Link for Additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words

Response:

Dronacharya College of Engineering, Gurugram has a well-equipped computer lab. College continuously upgrades its technology, infrastructure and teaching-learning methodologies. The institution provides IT enabled teaching-learning environment in the campus. Wi-Fi and CCTV facility is available in the

institute. Institute is using 540 Mbps Internet speed in order to have an uninterrupted teaching-learning atmosphere. All the departments of the college are provided with computer and other related equipment to facilitate learning. All faculty members use the ICT tools in the classrooms and laboratories for upgrading learning. Anti-virus is regularly installed in computers for avoiding any possible breakdown or system crash. More than 600 desktops are available in the laboratories to facilitate learning. There are 64 smart classrooms and 10 seminar halls, all equipped with LAN, WiFi, Audio Devices, Smart Board and LCD Projector. Significant investment has been made to upgrade classrooms to e-classrooms/smart classrooms. The students utilizes wi-fi for project related works, assignments, interactive sessions etc. The campus is well connected with intercom facilities. Cordless Mic, Sound system, Biometric Machine, printers, scanners and laptops are some other tools, the college is equipped with.

The faculty member used various ICT-enabled learning tools such as PPTs, video clips, audio systems, and online sources like Google Meet, ZOOM, Microsoft Teams, etc. to provide advanced knowledge and hands-on learning to students. Teaching and learning methods used by teachers include experiential learning which requires 24 hours internet connectivity. The classrooms are equipped with LCDs, OHPs, and computers. To prepare students for industry, the institute operates Center of Excellence and various departmental clubs at the institutional level like Sports club, Cultural club, Technical language club, robot club, programming club. For smooth functioning of the clubs, continuous supply of internet is necessary.

4.3.2 Student – Computer ratio (Data for the latest completed academic year)

Response: 0.52

4.3.2.1 Number of computers available for students usage during the latest completed academic year:

Response: 690

4.4 Maintenance of Campus Infrastructure

4.4.1 *Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years (INR in Lakhs)*

Response: 7.64

4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
51.73	67.30	25.20	30.81	52.40

File Description

Document

Institutional data in the prescribed format

[View Document](#)

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Percentage of students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the last five years

Response: 8.6

5.1.1.1 Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
13	32	22	53	20

File Description

Institutional data in the prescribed format

Document

[View Document](#)

5.1.2 Following capacity development and skills enhancement activities are organised for improving students' capability

1. Soft skills
2. Language and communication skills
3. Life skills (Yoga, physical fitness, health and hygiene)
4. ICT/computing skills

Response: A. All of the above

File Description

Institutional data in the prescribed format

Document

[View Document](#)

5.1.3 Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years

Response: 84.09

5.1.3.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
297	248	263	267	294

File Description	Document
Institutional data in the prescribed format	View Document

5.1.4 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases

- 1. Implementation of guidelines of statutory/regulatory bodies**
- 2. Organisation wide awareness and undertakings on policies with zero tolerance**
- 3. Mechanisms for submission of online/offline students' grievances**
- 4. Timely redressal of the grievances through appropriate committees**

Response: A. All of the above

5.2 Student Progression

5.2.1 Percentage of placement of outgoing students and students progressing to higher education during the last five years

Response: 88.7

5.2.1.1 Number of outgoing students placed and / or progressed to higher education year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
296	239	347	320	281

5.2.1.2 Number of outgoing students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
313	241	372	337	409

File Description	Document
Institutional data in the prescribed format	View Document

5.2.2 Percentage of students qualifying in state/national/ international level examinations during the last five years

Response: 100

5.2.2.1 Number of students qualifying in state/ national/ international level examinations year wise during last five years (eg: IIT/JAM/NET/SLET/GATE/GMAT/GPAT/CLAT/CAT/ GRE/TOEFL/ IELTS/Civil Services/State government examinations etc.)

2021-22	2020-21	2019-20	2018-19	2017-18
42	30	16	49	52

File Description**Document**

Institutional data in the prescribed format

[View Document](#)

5.3 Student Participation and Activities

5.3.1 Number of awards/medals for outstanding performance in sports/ cultural activities at University / state/ national / international level (award for a team event should be counted as one) during the last five years

Response: 25

5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
14	3	0	3	5

File Description**Document**

Institutional data in the prescribed format

[View Document](#)

5.3.2 Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)

Response: 19

5.3.2.1 Number of sports and cultural programs in which students of the Institution participated year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
28	21	14	17	15

File Description	Document
Institutional data in the prescribed format	View Document

5.4 Alumni Engagement

5.4.1 There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

Response:

The Alumni association of DCE, Gurugram believes in creating a link between the alumni, staff, and students of the institute. DCE alumni are currently working at various positions all over the globe and also running some successful businesses.

The Alumni Association contributes through various means:-

1. Alumni Interaction: Alumni of DCE give inputs to aspiring B.Tech graduates. They are invited as resource persons at various events, guest lectures and panel discussions. Many alumni connect programs are also organized throughout the year to guide the students. They provide inputs and share their experiences regarding skills, recent technologies & trends in corporate world, application of knowledge and corporate working culture.
2. Placement & Career Guidance Assistance: Alumni are working in organizations at various capacities. They keep the T&P department abreast about the available job opportunities and the job specifications required to perform different jobs. They assist and guide the students to prepare for the interviews.
3. Campus recruiters: Alumni come to campus as recruiters for their companies and also recommend and promote DCE to their employers for campus placements.
4. Book Donation: Alumni of DCE also supports by Contributing Books.
5. Summer Internship Opportunities: Alumni also guide the students for various internship opportunities available.
6. Entrepreneurship Awareness: Some of our Alumni have established successful startups in different sectors. They also educate the students with their success stories, pre-requisites of start-ups and challenges faced. Students are highly benefitted through such camps.

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2. Placement & Career Guidance Assistance: Alumni are working in organizations at various capacities. They keep the T&P department abreast about the available job opportunities and the job specifications required to perform different jobs. They assist and guide the students to prepare for the interviews. They also motivate the students to undertake projects and learn the concepts practically.
3. Campus recruiters: Alumni come to campus as recruiters for their companies and also recommend and promote DCE to their employers for campus placements.
4. Book Donation: Alumni of DCE also supports by Contributing Books.
5. Summer Internship Opportunities: Alumni also guide the students for various internship opportunities available.
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Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 *The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.*

Response:

Dronacharya College of Engineering, Gurugram since its inception in 1998 essays the role of a change leader, driven by a relentless pursuit of Academic and Professional Excellence. DCE, Gurugram is affiliated to **Maharshi Dayanand University, Rohtak** and approved by **All India Council of Technical Education, New Delhi** (AICTE, New Delhi). College offer **B.Tech** and **M.Tech** programme.

Vision statement: To impart Quality Education, to give an enviable growth to seekers of **learning, to groom** them as World Class Engineers and Managers competent to match the expanding expectations of the Corporate World has been our ever enlarging vision extending to new horizons since the inception of Dronacharya College of Engineering.

Mission Statement: We, at Dronacharya College of Engineering, are absolutely committed to serve the society and improve the mode of life by imparting high quality education in the field of Engineering and Management catering to the explicit and implicit needs of the students, society, humanity and industry. 'Shiksha evam Sahayata' i.e. Education and Help are the two words etched on our banner soaring higher year after year.

Management, IQAC, and other governing bodies fulfil the vision and mission statement of college. The administration works to make the college as top-tier institution in UG and PG, programmes. Goals of college represent the governance of the institution, which is in accordance with its vision and mission. College guarantees equal access to quality higher education in Science for all eligible and meritorious students from all socioeconomic levels.

The member from management is also committee member of IQAC. Principal works as institutional academic and administration Head, Chairman of IQAC and faculty members from all levels are members of IQAC and other committee also.

The IQAC members decide academic activities and methods for executing plans, subject to approval by principal. Various activities related to particular departments are planned and implemented by faculty members of respective department.

Management assists faculty members to develop academic leadership and administrative atmosphere, by giving them free reign to serve as conveners, secretaries, and members of the organizing committees of the various academic events organized in college. It is acceptable for teachers, non-teaching staff, and students to express their opinions, make suggestions, and take part in any activity intended to advance academic excellence and development of college.

Management actively participates in creation and execution of action plans of IQAC and review overall

annual progress. Quality plans and policies, budget, and audited financial statements are designed by IQAC chairman together with members, and they are approved at council meetings. Action plans cover a variety of topics, such as how to enhance teaching-learning, implementation of new programmes, support departmental initiatives with infrastructure, research, Library and use ICT, etc.

The decentralization of academic, co-curricular, extra-curricular, and administrative governance is managed through various college committees. The academic and administrative policies are planned by the academic administrator and monitored at regular intervals through the IQAC, Staff Council and the Council of Heads.

File Description	Document
Provide Link for Additional information	View Document

6.2 Strategy Development and Deployment

6.2.1 *The institutional perspective plan is effectively deployed and functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc*

Response:

Over the past years the institute has shown remarkable progress and to continue the practice, Strategies are formulated and executed effectively. Perspective/Strategic plan focuses on current trends which upon adoption can show better performance.

Following plans are proposed after proper discussion with the stakeholders involved and considering the short, medium and long term development plans. The stakeholders are the final beneficiaries of the developments.

DCE's strategic plan includes the following:

- Affiliated University curriculum is strictly adhered to and faculty members and students are encouraged to take up short term courses and participate in various seminars, presentations, workshops and competitions to improve skills and technical capabilities.
- The institute encourages Participation in competitions, Industry engagement, Entrepreneurship, Alumni engagement.
- Social outreach programs are focused at helping people of the region. The activities are planned in the beginning of every academic year

The plan is finalized by the HODs of all departments in consultation with the faculty members of the respective departments. This plan is then discussed in the HODs meeting with the Principal, followed by an approval from the management.

The salient features of the strategies being adopted at the institute are:

- Participating in various competitions by the students.
- Purchasing of new equipment for upgrading laboratories and establishing new labs.
- Developing Multidisciplinary innovation ecosystem, project based learning for students.
- Advising and encouraging students for taking up entrepreneurship roles.
- Internships and Industry based projects for students are also focused upon.

- Suggesting the students about various government & private aided scholarships, so that students could take benefit from them.

- Sponsoring faculty members and students to National/International level events, conferences and workshops
- Publishing paper in reputed journals by faculty members and encouraging students to carry more case studies.
- Increase number of Patent filing.

- Signing MoU with industry for training, interaction, inviting experts for interactive sessions.
- Introduce Certificate/Value Added Courses.
- Organize Workshops/Training for Faculty/ Organizing Conferences.
- Guest Lecture, Association Activities of respective departments.
- Industrial and Field Visits, Alumni interaction, conduction of NSS activities.
- Training of Non-teaching staff.

College strictly follows the guidelines established by UGC, NAAC, Govt. of Haryana and affiliated University, MDU from time to time. Organizational structure of college start with Governing Body and the suggestions and feedback are taken from the academic and non-academic heads and students also. Development Committee consists of members of management, HOD's of all departments and non-teaching staff, nominated members and Principal. IQAC consists of teachers, non-teaching staff, nominated members of Alumni Association, one nominee from industry / employer and stakeholder and student representative. Office- staff comprises of Back-office team, HR personnel, Accountant, peons, and watchmen.

College provides freedom and opportunities to the faculty to plan and implement various academic, extra-curricular and extension activities throughout the year.

Various policies are designed and implemented in the college by the respective authorities. These policies include:

- E-Governance Policy
- IT Policy
- Grievance Redressal Policy
- Anti-Ragging Policy
- Recruitment Policy
- Appraisal policy
- Admission Policy
- Campus Placement Policy
- Green Campus Policy

Any non-compliance with the policies draws punishment. College does not support/follow the policy of

corporal punishment.

File Description	Document
Upload Additional information	View Document

6.2.2 Institution implements e-governance in its operations

1. Administration
2. Finance and Accounts
3. Student Admission and Support
4. Examination

Response: A. All of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression

Response:

Dronacharya College of Engineering, Gurugram has performance linked appraisal system. The appraisal of the employees is based upon certain criteria related to their academic, research, innovative teaching methodologies, course delivery, updating of study material, question paper setting, regularity and punctuality. Besides, student feedback, pass percentage of the students, conducting student development programmes, contribution towards conduction of Innovation practices and participating in planning and development activities of the college. Teaching faculties are also judged on the parameters of publications in Scopus indexed journals, book publication, awards, honors, etc.

DCE has provided formats for performance appraisal reports of teaching and non-teaching staff. Each staff member of the institution is provided with the Self-appraisal form. Afterwards, Head of the respective departments and Principal evaluates performance of teaching and non-teaching staff. The Management takes review of performance appraisal reports and an appropriate decision is taken whenever required.

Following are the various welfare schemes for Teaching and Non-teaching staff.

Teaching Staff:

- Subsidized transportation facility is provided for faculty.
- Medical facilities are available for all faculties.
- Employees Provident Fund as per PF rules
- Financial support is provided for all faculties who present papers in national and international conferences, attend seminars, Workshops and industrial training.
- Maternity leave for women is provided.
- Leave for higher studies.
- Group insurance for faculty members.
- Leave encashment policy
- Duty leave for attending Seminars, Workshops and Conferences

Non- Teaching Staff:

- Transportation facility is provided.
- Maternity leave for women is provided.
- Distress programs are conducted.
- Motivated to pursue higher education.
- Skill development programs are conducted
- Employees Provident Fund as per PF rules
- ESI
- Leave encashment policy

For the faculty members willing to pursue higher education, the college supports by providing leave.

File Description	Document
Upload Additional information	View Document

6.3.2 Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Response: 15.23

6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
17	12	32	31	37

File Description	Document
Institutional data in the prescribed format	View Document

6.3.3 Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years

Response: 56.67

6.3.3.1 Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
185	142	162	126	192

6.3.3.2 Number of non-teaching staff year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
109	104	116	124	124

File Description	Document
Institutional data in the prescribed format	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/ nongovernment organizations) and it conducts financial audits regularly (internal and external)

Response:

Dronacharya College of Engineering, Gurugram follows well planned and systematic strategy for fund mobilization. The college maintains a transparent and accountable financial system for effective utilization of resources for funds. The college requires funds for salary, infrastructural development, routine academic and non-academic activities, sports, games, arts and cultural programmes, competitions, participation in university and inter-university sports and games, for providing scholarship and other kinds of financial assistance.

The college ensures strong adherence to financial transparency. Regular audits are a part of the process. The internal audit is carried out on quarterly basis. Student fees are the primary source of income for the institution. The management usually provides funds for infrastructure development regularly and on the request given by the academic and administrative departments. Annual audit is conducted both internally

and externally. The Internal audit is conducted by the Accounts Department of college and the report is submitted to the Managing Trustee for further action. The external audit is conducted by the CA. For the smooth running of organization, different committees have been formed, each committee studies its own field and analyzes requirements and then transfers it to principal with planned expenses. Finance manager goes through all suggestions and analyzes minutely and then acts accordingly to betterment of students, teachers, non-teaching faculties, the report is eventually handed over to the management committee.

The Institution constantly encourages its faculty members to apply for research grants offered by various funding agencies. The innovation projects of students are applied for DST, MSME etc. funding.

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

Response:

Dronacharya College of Engineering, Gurugram reviews its teaching learning process structure methodologies of operations and learning outcomes at regular intervals. Academic Administrator reviews all processes and methodologies taken by faculty members. Feedback from different stakeholders such as students, Faculty, Alumni is taken into consideration. Industry expert's academic experts and other dignitaries who visit the campus on different occasions interact with faculty and gave their suggestion.

The IQAC at college was constituted on 05/12/2005. Since then, it has been performing the following tasks on a regular basis.

1. Improvement in quality of teaching and research by regular inputs to all concerned based on feedback from all the stakeholders.
2. Providing inputs for best practices in administration for efficient resource utilization for development of students and staff.
3. Providing inputs for Academic and Administrative Audit and analysis of results for improvement in weak areas

IQAC has been constituted as per the format prescribe by the NAAC and meetings are held periodically. Quality assurance strategy and processes are being discussed and subsequently review by IQAC cell has initiated various measures since the first cycle of NAAC accreditation

The initiatives under taken are

- Formation of IQAC committee
- Annual Quality Assurance Report (AQAR) submitted on time

- Formation of Institution's Innovation Cell at college
- Three new programs were introduced after cycle 2 of NAAC Accreditation
- Feedback collection from students, faculty and alumni
- Strengthening Core Competency of students through Technical Skill development activities
- Participation in NIRF
- Participation in ARIIA
- Performance Based Appraisal System (PBAS) for Career Advancement Scheme (CAS)
- Initiative taken for Green Audit.
- Review of teaching learning process

File Description	Document
Provide Link for Additional information	View Document

6.5.2 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); quality improvement initiatives identified and implemented
2. Academic and Administrative Audit (AAA) and follow-up action taken
3. Collaborative quality initiatives with other institution(s)
4. Participation in NIRF and other recognized rankings
5. Any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA etc.

Response: A. Any 4 or more of the above

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period.	View Document
NIRF report, AAA report and details on follow up actions	View Document
Link to Minute of IQAC meetings, hosted on HEI website	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years. Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

Response:

Dronacharya College of Engineering, Gurugram conducts Gender Audit in 2021-22 to put a check upon the gender related issues and the resolution of the same. The audit's purpose is also to identify ways to make college safe for women and to create awareness about facilities available in the college for both the genders. It is also ensured that adequate seminars, lectures, workshops are conducted for awareness about gender equality.

Dronacharya College of Engineering, Gurugram is an equal opportunity institution and faculty members of all gender types have equal chance to organize as well as participate in seminars, workshops, conferences, and Faculty Development Programs.

To promote women education, the Institute makes consistent efforts. The Institute organizes several training programs, seminars, workshops etc. on gender equality, gender related issues and sensitization.

Both gender students are encouraged to participate in the events, presentations and competitions. All the year round, there are events and seminars wherein girl student is equally motivated to participate. Many extra-curricular activities are also organized where the girl students are on an equal platform like boy students. There are clubs (sports, cultural, technical language, NSS, coding, etc.) in the college where equal participation of both the gender students could be observed. The canteen is open to all irrespective of gender issues. Girls equally participate in the NSS activities. Washrooms are provided with sanitary napkin vending and disposal machine for the safe and hygienic disposal of sanitary napkins. Institute has Anti-Sexual harassment cell. The Institute has taken several measures to enhance safety & security on campuses by constituting Internal Complaints Committee (ICC), grievance redressal committee, CCTV cameras & providing 24 hours complete security inside the campus. CCTV's are also installed in the busses for safety purposes.

Gender equality in representation of women in all top positions could also be witnessed. The HOD of all departments, Academic Head, Placement cell, Office of the Deans, HR are all headed by women. The College provides equal chance to all faculty and students to undertake academic research, submit innovative projects, implement projects and file patents. Married female employees of DCE are eligible for Maternity Leave.

Separate toilet facilities are there for female and male students and faculty members on each floor of the academic block.

7.1.2 The Institution has facilities and initiatives for

1. Alternate sources of energy and energy conservation measures

2. Management of the various types of degradable and nondegradable waste
3. Water conservation
4. Green campus initiatives
5. Disabled-friendly, barrier free environment

Response: A. 4 or All of the above

File Description	Document
Geo-tagged photographs/videos of the facilities.	View Document

7.1.3 Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

1. Green audit / Environment audit
2. Energy audit
3. Clean and green campus initiatives
4. Beyond the campus environmental promotion activities

Response: A. All of the above

File Description	Document
Report on Environmental Promotional activities conducted beyond the campus with geo tagged photographs with caption and date	View Document
Certificates of the awards received from recognized agency (if any).	View Document

7.1.4 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)

Response:

Dronacharya College of Engineering, Gurugram lays efforts to provide an environment which make the students aware about the diverse cultures and traditions prevailing in the country. Many activities are organized throughout the year in and outside the college campus for providing an opportunity to understand the customs of diversified Country. Varied festivals of the country belonging to different religions, regions and communities are celebrated under one roof. Festivals of Holi, Deepawali, Lohri, New Year, Bihu, etc. are celebrated with great zeal year after year. The celebration of these functions helps in developing harmony towards culture, region, linguistic and also communal social economics. Every year, the college organizes Orientation Day, Fresher's Party and Induction Program for the students The college also has an in-built sports club meant for playing games of all the regions. Students are also encouraged to participate in many state and national level games which fosters participative culture.

Apart from imparting education, a feeling of belongingness and oneness among the student community is also built by way of celebrating and observing various practices and programs. Ambedkar Jayanti, Gandhi Jayanti, NSS Orientation Day, Republic Day, Independence Day, Constitution Day, Azadi Ka Amrit Mahotsav, Environment Day, Women's Day, Girl Child Day, Yoga Day, Children's Day, Teacher's Day, Martyr's Day, World Water Day, Voter's Day, Earth Day, etc. are celebrated every year to sensitize and enlighten students and make them responsible citizens. Motivational lectures by the eminent persons of the field are also delivered for sensitizing students and staff to the constitutional obligations. Students and staff of the college participate in many awareness camps addressing social causes. A compulsory course on Constitution of India and Human Ethics is made mandatory for all the students. The college has always been in the practice of organizing activities that not only initiate but also motivate the students to adopt various practices that promote the "Unity in Diversity."

File Description	Document
Upload Additional information	View Document

7.2 Best Practices

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual

Response:

Title of the Practice: **Project Based Learning**

Objectives of the Practice:

- To impart skills to analyze the real world problem and challenges.
- To improve the ability of applying concepts learned during the course to real-life experiences.
- To conduct interactive hands-on sessions in place of traditional classroom instruction.
- To increase the problem solving skills and innovative skills of students.
- To improve the practical skills of the students.
- To provide comprehensive and all-round education.

The Context

All students have different perspectives on issues and challenges related to society's technological needs. Students face difficulty in understanding the application of theoretical concepts in the real world. So, sometimes interest is lost in learning theory without knowing its practical application. With the growing

need for cutting edge research activities, faculties and students should be able to carry research projects. With this in mind, the Institute decided to implement project-based learning (PBL) for budding technocrats.

The Practice

Project-based learning is part of the curriculum. PBL allows students to integrate several different concepts learned to solve existing problem of society. As a result, learning becomes an enjoyable journey for both faculty and student. Faculty members identify suitable research projects for students and help students apply concepts learned in tutorials to the development of real-time projects. Participation in project contests, hackathons, programming contests are also encouraged. It is expected that the engineering graduates must possess the theoretical knowledge, fundamental concepts and the practical skills including ability to think critically. At the college, students are imparted the theoretical concepts through the classroom lectures and laboratory skills are taught in the dedicated laboratories. All the modern machineries are available in the laboratories in order to nurture the students' practical knowledge. For the time constraint factor, the mentors of the student's projects are available on Saturday to guide them. The college also possesses a well maintained library for students so that they can take references from the research papers, journals. Many memberships are available inside the library for references.

Obstacles faced and strategies adopted

Like any new idea, the proposed mechanism also has constraints. For Project based learning, enough practical knowledge is not gained by the students due to lack of interest and limited time availability for practical classes.

Students are encouraged to participate in the internal hackathons and contests by way of attracting them towards participating in various events and winning many prizes which includes cash prizes, certificates, goodies, trophies and more.

Impact of the practice

Faculty members encourage the students to take up necessary projects and guide them accordingly. The college possesses dedicated laboratories having all the modern machineries for enhancing student's learning scope. Students have won national and international hackathons, project competitions, and programming competitions. Many research projects made by students are funded by government and non-governmental organizations.

Resources required

Laboratories must be upgraded with all the modern machineries and efforts must be laid down to increase the student's interest.

Title of the Practice: Fostering Employability Skills

The Context:

A professional institution aims to make their students industry ready. Engineers must possess additional talents in addition to a traditional degree due to the fiercer competition in the industry. It is observed that there is a gap in skills between what employers demand and students possess. Numerous organizations taking part in the recruitment efforts had commented that while the students were technically proficient, they must also possess soft skills that may help them connect with companies. Measures are required to build student's critical thinking, problem solving skills and written and verbal communication skills.

Objectives of the Practice:

- To escalate and empower quantitative and qualitative aptitude of the students.
- To get students ready for the interviews or entrepreneurship.
- To bridge the gap between industry and academia.
- To develop student's adaptability to the demand of industry.
- To develop soft skill.
- To foster critical thinking abilities.

The Practice:

The institute ensures that students have up-to-date technical knowledge as well as communication and soft skills. In this regard, the institute organize number of career counselling sessions, personality development workshop for employability skills, guest lectures on aptitude and soft skills training, seminar on how to prepare for an interview, alumni connection programmes and placement preparation sessions. TPO interactions with corporate executives, in-depth discussions, with various organizations have aided institution in understanding the importance of providing students with exposure to cutting-edge technologies. The institute has MOUs with numerous industries in this context. To encourage innovation and student interest towards entrepreneurship the institute has also established an Institution's Innovation Council (IIC). Students are taught to carry research & innovation related activities and thus making them self-sufficient and also helping in creation of jobs in the market. The college is facilitated with hi-tech laboratories with all the ultra-modern machineries. Many tech companies hire graduates, and they receive competitive pay packages. Many of the students have settled abroad and some of them have become successful entrepreneur.

Obstacles faced and strategies adopted

One of the main problems students experience is a lack of interest in their study. The student anticipates a great salary but rarely works for it. In pursuit of their dreams, they neglect their education and refuse to put in the necessary study effort. It is also found that essential skills are missing in students that include soft skills like communication, teamwork, emotional intelligence, etc. To build interest of students towards studies many industrial visits are organized by the college so that they can get practical knowledge of what they are studying in classroom. To improve the soft skill and communication skill of student's number of activities like debate competition, GD is organized.

Impact of the Practice:

By fostering employability skills, students are more confident and are ready with all the necessary pre-requisites for capturing or generating employment. The placement percentage of the college students is

rising. Students are provided with GATE preparation classes so as to foster them for higher studies opportunities. Students are also benefitted through the establishment of IIC in the college. Various projects were shortlisted and thus helps in expanding the innovation ecosystem.

File Description	Document
Best practices as hosted on the Institutional website	View Document

7.3 Institutional Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

Dronacharya College of Engineering, Gurugram believes in making its students self-sufficient. College puts every effort in making its students academically sound and socially responsible. Since the inception of the college in 1998 with the clear Vision statement which states to impart Quality Education, to give an enviable growth to seekers of learning, to groom them as World Class Engineers and Managers competent to match the expanding expectations of the Corporate World. The Mission of the college is also very well defined and explained which says the college is committed to serve the society and improve the mode of life. DCE caters to the explicit and implicit needs of the students, society, humanity and industry. 'Shiksha evam Sahayata' i.e. Education and Help are the two words etched on the banner of DCE.

One of the primary priorities of the college is academic excellence. This is achieved by following rigorous curriculum of the affiliating University which covers the latest developments in technology and engineering. The faculty members of the colleges are highly qualified and experienced, and they impart knowledge through a variety of teaching methods such as lectures, tutorials, and hands-on projects. The college is equipped with all the modern facilities and machineries to enhance the learning of the students. The latest ICT tools and smart boards such as Google Classroom, Video Conferencing Tools: Microsoft Teams, ZOOM, Google Meet, PPT, Video clippings, audio systems, Virtual Labs are available in the college to support learning and to expose the students for advanced knowledge and practical learning. The college campus is also supported with uninterrupted Wi-Fi. To make students academically sound, the college is also running Centers of Excellence, various Clubs, viz: Coding club, Sports club, Technical language club, Robotics club, NSS club are also formed which relates to academic and non-academic areas. Workshops, seminars, guest lectures, industry visits and field excursions are also organized to upkeep the students about the latest trends and technologies.

The faculty members and students of the college have presented and published many research papers, the number of patents filed by the students and faculty members is also high which depicts the college's performance towards making them innovatively sound. The College is constantly engaged in cutting-edge research in various fields such as computer science, Electrical and Electronics Engineering, Mechanical Engineering. The research conducted by the college has a significant impact on society and contributes to the development of new technologies and products. The performance of the college in this area can be assessed by the number of research grants it has received, the number of patents filed, and the impact of

research on society. There is a strong network of alumni which helps the students to prepare themselves for future. The alumni of the college give valuable guidance on the spheres like resume building, cracking the GD's and interview rounds, giving them insights about the industry, placement, career guidance, entrepreneurship awareness, campus recruitment and various paths available after completing B-tech.

The college has state-of-the-art laboratories, library, and classrooms that provide students with the necessary resources to excel in their studies. The performance of the college in this area can be assessed by the quality of infrastructure, the availability of modern equipment and technology, and the cleanliness and safety of the campus.

Finally, social impact is another priority for the college. The college believes that college life is not only about academics, games, fun and friends. It is also about being aware about and contributing towards social, environmental and gender related issues. The college is dedicated towards sowing the seeds of social values in its students. The college is involved in various social and community development activities that contribute to the betterment of society. The performance of the college in this area can be assessed by the number of social and community development activities it has undertaken. All the year round NSS Unit of the college is active and many outreach programs are organized which puts a direct impact on the society. Many awareness camps on social issues, gender issues and environment issues are organized by the college for the upliftment of the conservative thinking of the locals. Tree plantation drives, cleanliness drives and waste management activities are also carried throughout the year. Blood donation camps and methods of road safety are other some activities taken up by the institutes.

5. CONCLUSION

Additional Information :

The Self Study Report preparation has given us an opportunity to introspect and indulge in a critical analysis of our strengths, weakness, challenges and the opportunities that are ahead of us. The Management, faculty, staff and students have invested their time and resources to consciously undertake Cycle-III accreditation process to present ourselves to NAAC and understand our performance and be accountable to all our stakeholders. This exercise has enabled us to document the progress we have made from 2017-18 to 2021-22 and identify the scope ahead of us.

Concluding Remarks :

The Self Study Report preparation has given us an opportunity to introspect and indulge in a critical analysis of our strengths, weakness, challenges and the opportunities that are ahead of us. The Management, faculty, staff and students have invested their time and resources to consciously undertake Cycle-III accreditation process to present ourselves to NAAC and understand our performance and be accountable to all our stakeholders. This exercise has enabled us to document the progress we have made from 2017-18 to 2021-22 and identify the scope ahead of us.