

# FOR 2<sup>nd</sup> CYCLE OF ACCREDITATION

# DEFENCE INSTITUTE OF ADVANCED TECHNOLOGY(DEEMED TO BE UNIVERSITY U/S 3 OF THE UGC ACT 1956)

DEFENCE INSTITUTE OF ADVANCED TECHNOLOGY (DU), GIRINAGAR, PUNE, MAHARASHTRA - 411025.

411025

www.diat.ac.in

### Submitted To

### NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

**BANGALORE** 

March 2022

### 1. EXECUTIVE SUMMARY

### 1.1 INTRODUCTION

**The** Defence Institute of Advanced Technology, (DIAT) as it is known today, came into being as the Institute of Armament Studies in 1952 in the CME campus.

In 1967, the Institute was renamed as "Institute of Armament Technology, (IAT)", which moved to its present location at Girinagar, Pune. From the relatively narrow scope of Armament Studies alone in the Fifties, the role of the Institute was considerably enlarged by the Defence R&D Council in 1964 and further in 1981.

On the basis of accreditation by the All India Council of Technical Education (AICTE), Pune University recognised eight courses for the award of ME degree in 1980. In the year 2000, the Institute acquired the status of a Deemed to be University. IAT has been renamed as DIAT w.e.f. 1st April 2006.

#### Vision

To be a center of Excellence of international repute for Education, Training and research in Advanced Technologies with a view to strengthen national security and self reliance.

#### Mission

To evolve as an Innovative Unique Research University to develop indigenous contemporary Defence related technologies in Navigation Systems, Wireless Sensors, Efficient Propulsion Systems, Weapon Systems for DRDO and Defence Services, provide technological solutions to the Services to optimise combat battlefield effectiveness and above all produce qualified quality manpower which can truly become an instrument for building a strong indigenous technology base in the context of creating a performing Defence Industrial Base in India.

### 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

### **Institutional Strength**

- Only dedicated PG, PhD University for Ministry of Defence in the country, Chencellor Hon'ble RakshaMantri generous Grant in Aid received.
  - Sprawling beautiful campus
- Great infrastructure facilities.
- Excellent student support with hostels, library, scholarships, health care etc
- Transparent admission policy

- Clearly defined Vision and Mission
- Wide number of PG, and Ph.D programs in Engineering, Sciences, Management.
- National Qualified competitive students and accomplished faculty members.
  - Good student-faculty ratio.
  - Scientists / Faculty Members are ranked as top 2% as the most influential researcher in their technical domain as per the recent Stanford University's Scopus Indexed data.
- Updated curriculum and syllabi to meet the needs of Armed Forces, DRDO, Defence Quality Assurance, Defense Ordnance Factories, Directorate of Aeronautical Quality Assurance, and other Public Sector undertakings many specialized / customized PG courses are conducted
  - Higher standards of quality training in the critical area of modern Defence Technologies, thereby enhancing the technical capabilities of DRDO Scientists, Service Officers, Officers from Defence Industries and fresh engineering graduates
- Effective Teaching-learning process with use of ICT.
- e-governance and e-varsity
- Semester scheme with continuous assessment.
- Methodical and transparent evaluation process
- Strong research culture with significant research output.
- Community oriented extension activities.
- Enviable placement record
- Networking with DRDO, Atomic Research and CSIR, DBT.
- Scholarships and choice based credit system in academics
  - Varieties of audit courses online across the departments.
- Sports and cultural facilities
- Guidance and counselling.
- Personality and skill development programs

### **Institutional Weakness**

• Adjunct faculty to visit and teach specialized subjects.

- Faculty exchange with reputed universities
- Number of industrial trained professors
  - Student, faculty and staff strength

In this age of aggressive marketing, being a societally conscious organization, DIAT's marketing practices are sometimes seen as conservative

### **Institutional Opportunity**

- The selection of DIAT as an Institution of Eminence by UGC provides a unique opportunity to build our university into a top 100-ranked world-class academic and research institution, which unfolds significant opportunities to innovate in curriculum, teaching-learning process, research ecosystems and international presence, enabling us to be nimble in incorporating modern approaches to academics and research (e.g., micro and nano credits, interdisciplinary programs), without legacy issues.
- DIAT's emphasis on value-based education, integrating spirituality and India-focused traditions with modern scientific concepts, providing an opportunity to establish substantial uniqueness from an international perspective
- In India, education as a means to focus knowledge towards helping the poor is gaining momentum. DIAT's historical and long-standing connection with societal service better positions the university to have a unique advantage as a leader and mentor in this area of education.
- DIAT provides unprecedented opportunities to apply the latest engineering and technological advancements towards healthcare, one of the grand challenges of the millennium.
- DIAT has one of the best international reach among Indian institutions, facilitating opportunities for greater internationalization of the university in terms of student involvement and joint research initiatives.
- As India establishes a robust economic growth and commitment to scientific progress, DIAT provides opportunities to attract talent back to India to help build our university to world-class standards.

• DIAT to contribute immensely for self reliance in the field of Defence Technology as a part of Atmanirbhar Bharat.

### **Institutional Challenge**

- To get specialized guest and visiting faculty
- To maximize ICT enabled pedagogy
- To computerize the remaining activities and to ensure e-governance
- To attract more industries for placement, in plant training and project works.
- To create the attitude and mindset among all stakeholders towards a feeling of 'Ownership' regarding the university

### 1.3 CRITERIA WISE SUMMARY

### **Curricular Aspects**

DIAT is a premier autonomous institute under Ministry of Defence. It is located at Girinagar spread over 496 acres. All the courses in every programmes of study being offered at Defence Institute of advanced technology (DIAT) are relevant to Defence technology, national/international technology developments, and industrial requirements. Every year the respective department conducts board of study (BoS) including the experts from Armed forces, DRDO, Industries, and other reputed national academic institutions. All our courses are framed following the bloom's taxonomy, and appropriately mapping programme specific objective (PSO), course objective (CO) and programme objective (PO). Percentage of programmes for which the syllabus revision was carried out in the last five years is 55.33%. Further, 27% of weightage is given in all the courses for having focused coverage on the employability, entrepreneurship, and skill development.

Precenatge of new courses introduced out of total number of courses across all the programmes in last five years is 43%. We introduced the choice-based credit system (CBCS)/elective-course-system in all the programmes of every department. A regular/full mandatory course on research methodology, and lectures/talks/seminary on various other topics relevant to professional ethics, human values, valued-added courses, life-skill improvement, and environment/sustainability are also being conducted every semester. Average percentage of students participated in such courses is 62%. Around 36% of our students are undertaking field project, research project, and internship etc., every year. A well-established student feedback on-line/off-line system to collect the feedback from the stakeholders is in practice, being collected every semester/year, analysed, and addressed.

### **Teaching-learning and Evaluation**

Huge demand for almost for all our courses, and the last five years average demand ratio is 5.47 M.Tech., and 6.41 for Ph.D. Average % of reservation seats filled every year is 66.09. We conduct remedial classes, special classes on the design related courses, for the slow learners to improve their understanding and confidence level. We also have 1:4 mentoring system to keep a close monitoring of academic progress of each and every student. In order to improve the research interest at the students, DIAT supports for conference/journal/book publications, attending various seminars/workshops, and conferences. The unique feature of our institute is GATE students are getting opportunity to interact with DRDO scientists, service officers, which gives exposure to other students in various aspects that results into their effective preparation towards industrial needs.

Faculty-student ratio at our institute is 53:215. Students centric mechanism is in place at DIAT and being practised in terms of (i) experimental learning (mini-project/project work, doing industrial projects, field visits, attending various competitions, and arranging guest lecturers etc.,), (ii) participated learning (team work activities, social responsibilities, village adaptation, and technical project expos etc.,), (iii) problems-solving (case studies, and research activities etc.,). The information communication and technology (ICT) is incorporated at the institute level via our data centre, WiFi connectivity, smart class rooms, video lecturing (recording) facilities, library facility with the access of journals/books, and every teacher follows it in terms of animative teaching, using PPTs in their lecture, and monogram preparation etc. Average percentage of full-time teachers appointed against sanctioned posts is 72.85, average percentage of full-time teachers with PhD is 87.44, average teaching experience of full-time teachers is 7.50, average percentage of full-time teachers receiving award is 12, average percentage of grievance received about the examination is 0. A common ERP system is in place to conduct/carryout all the proceedings related to the examinations. Institute adopts all the all the PO, CO, PSO mappings and the courses are being offered covering all the aspects of bloom taxonomy. And the attainments are evaluated by direct and indirect assessment methods, and average pass % is 100.

### Research, Innovations and Extension

DIAT has all the necessary facilities and encourages the young faculty with institute fund (seed money) to initiate the research activities. Our mandatory requirement is to work in Defence technology and function as technology feeder to DRDO, DPSUs, and armed forces. We also have MoU with several other reputed national academic Institutes/Universities within India and outside our country. Percentage of teachers receiving award/research-fund every year is 95%. Average No. of JRFs, SRFs, Post Doc., and RA accommodated in the last five years is 15%. DIAT has central instrumentation centre, research/statistical database/dataset, and system performance characterisation theatre. Percentage of depts., having programmes/projects with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other is 63.63%. Average amount of extramural fund the institute receives is Rs. 2 Cr, and average projects grant received is Rs. 4.8 Cr. DIAT has an innovation centres, supports for IPR filling, and start-up (entrepreneurship) industries in different domains.

Average of no. of workshops/seminars conducted on various technical topics and research methodology in the last-five years is 85. Average awards/recognitions received for the research/innovations by the institute/teachers/research-scholars/students in the last five years is 24. No. of patents published/awarded during last five years is 10, No. of Ph.D awarded per teacher during last five years is 3. No. of UGC notified/peer-reviewed journal papers, and books/book-chapter per teacher in the last five years are 17, and 3 respectively. All our teachers prepared E-content in different forms such as PPT, video lecture, concepts animations.

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Average bibliometrics of publications during last five years is 60. A well-structured consultancy policy is in place which encourages the faculty to take-up several consultancy projects from the industries, and the revenue generated via the consultancy in the last five years is Rs. 1.3 Cr. Our students/faculty always extending their activities for neighbourhood community developments such as blood donations, Swachha bharat mission, plantation, conducting NSS special camp at neighbouring villages, and SwachhataPakhwada etc. And DIAT conducts an average of 5 extension/outreach programmes every year. The average No. of collaboration and MoU signing every year is 05.

### **Infrastructure and Learning Resources**

Our institute is situated in a beautiful greenery location overlooking by Khadakwasla lake and Sahyadri hills. The institute ensures adequate availability and optimum utilization of physical infrastructure. Every year we do the assessment/replacement and upgradation based on the suggestions of the BOS members. DIAT has all the necessary facilities for cultural activities, yoga, games, sports activities, Gym in hostel, yoga/dance centres, indoor/outdoor sports grounds, basketball court, volleyball ground, table tennis, and chess etc. DIAT is engaged in importing technical education, in niche areas at PG, MS (by Research), and Ph.D in its various forms and capacities. Quick and efficient service is ensured by on-line public access catalogue (OPAC) system, public access, and LIBSYS software. All the books are RF ID tagged, thus, quick issue/return is in practice.

In addition to having more number of hard copies of books, access of e-journals, e-books, e-shodhSindhu, shodhganga, and databases etc., also available at our central library. Last five years average expenditure for the purchase of book is Rs. 2,21,09,450/-. Percentage (per day usage) of utilization of our library by teacher/student is around 53.5%. All the class rooms are upgraded with the smart facilities i.e., with LCD, and Wi-Fi/LAN facilities. Six seminar halls are upgraded with ICT facilities, thus, all together, the percentage of ICT enabled class room is 92%. DIAT has IT policy with its own server for email access, and web page management. Recently spend budget for the IT facility is 28 lakhs. In addition, we all the teachers are facilitated with the access of DRDO server for email access. Student -computer ratio in the last academic year is < 1. Available bandwidth of internet for regular access: optical link 1Gbps, and backup RF link 100Mbps. Also, we have NKN and DRONA facility for the specific purpose on-line access. In our Institute, Polycon HDX 8000, eStation, and Polycom RSS 4000 are being used at our multimedia centre, audio visual centre, lecture capturing, and also for mixing equipment/editing applications. Established major systems for the support of the physical and academic facilities are maintenance of library, computers, class rooms, conference hall, and laboratories.

### **Student Support and Progression**

All our students are admitted based on the GATE score via CCMT counselling process, and, hence, they are getting Govt., scholarship every month. All the other students are sponsored by the DRDO, DPSU, armed forces, and industries etc. Further, all our students are being benefited by various counselling programmes, and guidance for competitive examinations offered by the institute. Several internal committees (anti-ragging committee, academic grievance committee, women grievance committee, HMC committee, Minority/OBC anti-discrimination cell, and SC/ST cell etc.,) are in place for the redressal of our student's grievances including sexual harassment and ragging cases.

Almost, 80% of our students are placed (for job) during the course period, while another 20% prefer for the higher studies. Every year our students won an average of 8 awards in various sports/cultural activities within the university, and other state/national/international level events. university's innovation council is active in organizing various technical team events and competitions. Students are also involved in almost all the committees and their views/suggestions are factored-in for all the decision process/policy making. Most of our students are the members in our alumni association and they actively involving with various activities/contributions in different forms till now for the worth of 7Cr in the last five years.

### Governance, Leadership and Management

The vision and mission of DIAT is devised to be a center of Excellence in advanced technologies mainly on the defence technology. To be a center of Excellence All most all the facilities are available at our campus. The main adequate facilities at our institute for teaching and learning are class-rooms, seminar halls, conference auditoriums, laboratories, computing facilities, data centres, campus wide fiber/WiFinetworks, NKN facility, video conference, virtual class rooms, postal/bank/hospital/market services,DRONA network, dept.,/central library, and institute innovation centre etc.

Institute establishes a balance environment covering academic, cultural, and sports activities. Main facilities for this supporting this environment are sports ground, badminton court, basketball court, cricket ground, food ball ground, volley ball ground, Lawn tennis court, table tennis, chess, and carom boards.

Our campus is ensconced in the Sahyadri hills adjacent to the famous Sinhagad Fort and embanking the vast Khadakwasla Lake. DIAT is a fully residential institute. Professional development fund is available to faculty for research and collaboration. The Institute support faculty in attending various faculty development programme, conferences. Emergency financial support is provided to the employees of the Institute. Support to growth and development of the Institute in a planned and phase manner.

#### **Institutional Values and Best Practices**

Institute maintains high ethical standards in academics and administration. Gender equality and inclusion is always given high priority. Alternate source of energy such as solar, biogas and energy efficient electrical equipment are available in the Institute. Waste management such as solid, liquid and hazardous chemicals are taken care with the help of neighbouring Institute.

Water conservation facilities are available in the Institute. As a part of green campus initiative, use of bicycles, pedestrian pathways and banning of single use plastic has been initiated. Energy audit is done in the Institute by MES. Supportive facilities to differently able people such as ramps//lifts exist in the Institute.

Cultural and regional celebrations are undertaken to maintain harmony in the campus Various social programmes such as Gandhi Jayanti, National Integrity day, International Yoga day, Constitutional day etc are celebrated to increase the awareness of social values. Institute follows the guidelines and code of conduct as laid down by UGC, AICTE and DDR&D. Several Conferences, seminars and workshop of high repute are organized regularly.

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Self Study Report of DEFENCE INSTITUTE OF ADVANCED TECHNOLOGY(DEEMED TO	O BE UNIVERSITY U/S 3 OF THE UGC ACT 1956)

### 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the University						
Name	DEFENCE INSTITUTE OF ADVANCED TECHNOLOGY(DEEMED TO BE UNIVERSITY U/S 3 OF THE UGC ACT 1956)					
Address	Defence Institute of Advanced Technology (DU), Girinagar, Pune, Maharashtra - 411025.					
City	PUNE					
State	Maharashtra					
Pin	411025					
Website	www.diat.ac.in					

Contacts for Communication									
Designation	Name	Telephone with STD Code	Mobile	Fax	Email				
Vice Chancellor	C. P. Ramana rayanan	020-24304001	7875593598	020-2438941	vc@diat.ac.in				
IQAC / CIQA coordinator	Balasubrama nian	020-24389241	7875593598	020-2438941	balask@diat.ac.in				

Nature of University	
Nature of University	Deemed University

Type of University	
Type of University	Unitary

<b>Establishment Details</b>	
Establishment Date of the University	01-05-1952
Status Prior to Establishment,If applicable	

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Recognition Details							
Date of Recognition as a University by UGC or Any Other National Agency :							
<b>Under Section</b>	Date	View Document					
2f of UGC							
12B of UGC							

<b>University with Potential for Excellence</b>	
Is the University Recognised as a University with Potential for Excellence (UPE) by the UGC?	No

Location,	Location, Area and Activity of Campus								
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.	Program mes Offered	Date of Establishment	Date of Recognition by UGC/MHRD		
Main campus	Defence Institute of Adva nced Te chnolog y (DU), Girinaga r, Pune, Maharas htra - 411025.	Rural	496.092	176784	PG/MS/P hD				

### 2.2 ACADEMIC INFORMATION

Furnish the Details of Colleges of University

Type Of Colleges	Numbers
Constituent Colleges	0
Affiliated Colleges	0
Colleges Under 2(f)	0
Colleges Under 2(f) and 12B	0
NAAC Accredited Colleges	0
Colleges with Potential for Excellence(UGC)	0
Autonomous Colleges	0
Colleges with Postgraduate Departments	0
Colleges with Research Departments	0
University Recognized Research Institutes/Centers	0

s the University Offering any Progra egulatory Authority (SRA)	: Yes	
SRA program	Document	
AICTE	108852 5683 1 1639635520.P DF	

### **Details Of Teaching & Non-Teaching Staff Of University**

Teaching Faculty												
	Prof	Professor				Associate Professor			Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned				12				24				34
Recruited	11	1	0	12	9	2	0	11	26	7	0	33
Yet to Recruit				0				13				1
On Contract	1	0	0	1	0	0	0	0	1	0	0	1

Non-Teaching Staff							
	Male	Female	Others	Total			
Sanctioned				140			
Recruited	39	14	0	53			
Yet to Recruit				87			
On Contract	3	2	0	5			

Technical Staff							
	Male	Female	Others	Total			
Sanctioned				120			
Recruited	36	4	0	40			
Yet to Recruit				80			
On Contract	0	0	0	0			

### Qualification Details of the Teaching Staff

	Permanent Teachers									
Highest Qualificatio n	Professor		Associate Professor		Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	11	1	0	9	2	0	22	7	0	52
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	4	0	0	4
UG	0	0	0	0	0	0	0	0	0	0

	Temporary Teachers									
Highest Qualificatio n	Professor		Associate Professor		Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	1	0	0	0	0	0	0	0	0	1
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	1	0	1
UG	0	0	0	0	0	0	0	0	0	0

	Part Time Teachers									
Highest Qualificatio n	Professor		Associate Professor		Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	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

### Distinguished Academicians Appointed As

	Male	Female	Others	Total
Emeritus Professor	0	0	0	0
Adjunct Professor	0	0	0	0
Visiting Professor	1	0	0	1

### **Chairs Instituted by the University**

### Self Study Report of DEFENCE INSTITUTE OF ADVANCED TECHNOLOGY(DEEMED TO BE UNIVERSITY U/S 3 OF THE UGC ACT 1956)

Sl.No	Name of the Department	Name of the Chair	Name of the Sponsor Organisation/Agency
1	Aerospace Engineering	Not yet joined	BDL

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

Programme		From the State Where University is Located	From Other States of India	NRI Students	Foreign Students	Total
PG	Male	49	206	0	7	262
	Female	8	27	0	0	35
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	26	106	0	0	132
	Female	4	21	0	0	25
	Others	0	0	0	0	0

Does the University offer any Integrated Programmes?	No
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### **Details of UGC Human Resource Development Centre, If applicable**

Year of Establishment	Nill
Number of UGC Orientation Programmes	0
Number of UGC Refresher Course	0
Number of University's own Programmes	0
Total Number of Programmes Conducted (last five years)	0

### **Accreditation Details**

Cycle Info	Accreditation	Grade	CGPA	Upload Peer Team
				Report
Cycle 1	Accreditation	В	2.86	
				NAAC peer team
				review.pdf

### 2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Department Of Aerospace Engineering	<u>View Document</u>
Department Of Applied Chemistry	View Document
Department Of Applied Mathematics	View Document
Department Of Applied Physics	<u>View Document</u>
Department Of Computer Science And Engineering	<u>View Document</u>
Department Of Electronics Engineering	View Document
Department Of Mechanical Engineering	View Document
Department Of Metallurgy And Materials Engineering	View Document
Department Of Technology Management	View Document
School Of Quantum Technology	View Document
School Of Robotics	<u>View Document</u>

### Institutional preparedness for NEP

Amidst the green beautiful Sahyadri Hills, overlooking the picturesque Khadakwasla lake, is situated the Defence Institute of Advanced Technology, (DIAT), which came into existence on 1st May 1952 as Institute of Armament Studies at the sprawling campus of the College of Military Engineering, Dapodi, Pune. In the year 1967, the Institute, renamed as the Institute of Armament Technology, was shifted to its present location at Girinagar, Pune. Since then the Institute under the aegis of Department of Defence Research and Development, Ministry of Defence, Government of India, grew in strength and stature, was recognized as Deemed to be University on 1st April 2006.  Transforming the Defence/industry need, DIAT approach to curriculum integration which focuses primarily on the different disciplines and the diverse
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	different back ground instructors are involved in research and teaching. Also, students are encouraged for opting other department subjects as electives/audit in each semester. In addition, DIAT started different Schools, which involve different department to carry out teaching and research. Working with industry, DRDO laboratories, government and not-for profit organizations in India and internationally, for M. Tech projects DIAT challenge current thinking and offer new solutions to change our Defence need.
2. Academic bank of credits (ABC):	DIAT constituted a committee for reviewing and implementing ABC in academic programme.
3. Skill development:	DIAT conducts different workshops for graduate students in advanced areas like 3D printing, AI, Robotics, cyber security, IPR, communication skills etc in addition to their course curriculum. All graduate students are encouraged to do summer project and master's project in various industries/DRDO laboratories.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	DIAT encourages to use traditional knowledge in various research programs. DIAT faculty members patented and published using tradition ayurvedic/casting knowledge. For example: In recent COVID 19 pandemic, DIAT developed and commercialize biodegradable mask using Neem, turmeric etc. During COVID-19 students were encouraged to develop virus neutralizing roomfreshener These products have essential Oils extracted from various herbal raw materials. Products were developed with the support from M/s. Khadi Industries, Solan Himachal Pradesh (HP). Also, DIAT conduct Yoga Classes/practical for all two times a year. DIAT encouraged/promotes students for celebrating cultural activities throughout year. Further students are also encouraged to enhance traditional knowledge available through SWAYAM. All the products developed during COVID-19 are the appropriate integration of Indian knowledge system.
5. Focus on Outcome based education (OBE):	DIAT adopted Outcome-Based Education (OBE) and it is a student-centric teaching and learning methodology in which the course delivery, assessment are planned to achieve stated objectives and outcomes. It focuses on measuring student performance i.e. outcomes at different levels. Some

important aspects of the Outcome Based Education in DIAT 1. Course is defined as a theory, practical or theory cum practical subject studied in a semester. For E.g. Mathematics for Engineers, Systems Engineering 2. Course Outcome (CO) Course outcomes are statements that describe significant and essential learning that learners have achieved, and can reliably demonstrate at the end of a course. Generally three or more course outcomes may be specified for each course based on its weightage. 3. Programme is defined as the specialization or discipline of a Degree. It is the interconnected arrangement of courses, co-curricular and extracurricular activities to accomplish predetermined objectives leading to the awarding of a degree. For Example: M.Tech in Mechanical Engineering (specialization: Marine Engineering) 4. Programme Outcomes (POs) Program outcomes are narrower statements that describe what students are expected to be able to do by the time of graduation. POs are expected to be aligned closely with Graduate Attributes. 5. Program Educational Objectives (PEOs) The Programme Educational objectives of a program are the statements that describe the expected achievements of graduates in their career, and also in particular, what the graduates are expected to perform and achieve during the first few years after graduation. 6. Programme Specific Outcomes (PSO) are what the students should be able to do at the time of graduation with reference to a specific discipline. Usually there are two to four PSOs for a programme.

6. Distance education/online education:

DIAT encourage students of all M.Tech programmes for opting online MOOC/NPTL course as elective / audit subject.

### **Extended Profile**

### 1 Program

### 1.1

### Number of programs offered year-wise for last five years

2020-21	2019-20	2018-19	2017-18	2016-17
16	14	14	13	10

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 1.2

### Number of departments offering academic programmes

Response: 11

### 2 Students

### 2.1

### Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
430	460	524	540	448

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 2.2

### Number of outgoing / final year students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
240	203	240	256	116

File Description	Document
Institutional data in prescribed format	View Document

### 2.3

### Number of students appeared in the University examination year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
202	240	250	240	114

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 2.4

### Number of revaluation applications year-wise during the last 5 years

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

### 3 Teachers

### 3.1

### Number of courses in all programs year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
499	473	440	482	504

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 3.2

### Number of full time teachers year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
53	50	48	50	49

File Description	Docu	ment	
Institutional data in prescribed format	View	Document	

### 3.3

### Number of sanctioned posts year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
70	70	70	70	70

File Description	Document
Institutional data in prescribed format	View Document

### 4 Institution

### 4.1

Number of eligible applications received for admissions to all the programs year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
1851	1868	1712	2205	2942

File Description	Document
Institutional data in prescribed format	View Document

### 4.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
111	99	99	93	87

File Description	Document
Institutional data in prescribed format	View Document

### 4.3

Total number of classrooms and seminar halls

Response: 27

Jonese. 2

### 4.4

Total number of computers in the campus for academic purpose

Response: 350

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### 4.5

### Total Expenditure excluding salary year-wise during last five years ( INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
1709	1772	1788	2415	1852

### 4. Quality Indicator Framework(QIF)

### **Criterion 1 - Curricular Aspects**

### 1.1 Curriculum Design and Development

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

### **Response:**

All the courses in any programme of study offered by Defence institute of Advanced Technology are developed having relevance to local national and global developmental needs. Every department of study which is offered by any programme has a board of studies (BOS) at least once a year. BOS Committee comprises of DRDO subject expert, Industry representative, subject expert from other academic institutes like IISc/ IIT/ NIT. After detailed deliberation of committee members it will be forwarded to PGC and subsequently Academic council. Every programme presents programme outcomes, Program specific outcome, and Course outcome of each course. In addition to this, each programme carries course objective that unfolds the learning outcome of that course.

DIAT(DU), being an autonomous Institute, which is supported by Ministry of Defence, the primary importance is given to defence related subjects—for example, Armament and combact vehicles, Missile technology, Artificial Intelligence, Machine Learning, Robotics, Technology Management, etc. An extra care is taken by Institute to nurture the research and technology relevant to Defence and Space related applications along with the other common industrial needs. Though minor revision in syllabi is continuous practice the major revisions will be taken care based on the co-po attainment gap, this has come into practice from 2016 onwards for all the programme. Each department maintain course file for all the subjects offered, course files contain course plan, all the 3 test question paper, internal evaluation details, end-semester question paper and result analysis details. At the start of each semester all the professors are bound to prepare a course plan which includes the lecture plan, evaluation plan, grading details, reference books details, and course outcome of that subject.

Being a research institute, that offers only PG and PhD program, the program outcome and course outcome are maintained at blooms taxonomy higher levels. For example, PhD programmes, the programme outcomes are mostly making 'contribution' in terms of discovery/invention or advancing a given discipline of knowledge, ability to work independently, development of critical thinking and so on. For PG programmes, the programme outcomes generally are mastery of the subject knowledge, its application in relevant contexts, learning teaching skills, preparation for higher studies and so on. All the departments of studies have their programme outcomes, programme specific outcomes, and course outcomes in place, and these are displayed in the web pages of the respective departments in DIAT(DU) website.

File Description	Document
Link for Additional information	View Document

### 1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

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Response: 23.88

### 1.1.2.1 How many Programmes were revised out of total number of Programmes offered during the last five years

Response: 16

### 1.1.2.2 Number of all Programmes offered by the institution during the last five years.

Response: 67

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Details of Programme syllabus revision in last 5 years	View Document
Any additional information	<u>View Document</u>
Link for additional information	View Document

### 1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

**Response:** 136.09

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
680	629	593	661	702

File Description	Document
Programme/ Curriculum/ Syllabus of the courses	View Document
Institutional data in prescribed format	View Document

### 1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

Response: 66.67

### 1.2.1.1 How many new courses were introduced within the last five years.

Response: 516

### 1.2.1.2 Number of courses offered by the institution across all programmes during the last five years.

Response: 774

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

### 1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Response: 100

### 1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented.

Response: 16

File Description

Document

Minutes of relevant Academic Council/BOS
meetings

Institutional data in prescribed format

View Document

View Document

#### 1.3 Curriculum Enrichment

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

### **Response:**

- 1. Institute celebrates Birth Anniversary of Swami Vivekananda's Birth Anniversary and Bharat Ratna Dr. Babasaheb Ambedkar.
- 1. Following activities was carried out in 2015
- 1. Awareness Program on Women Harassment at Workplace by Mrs. Rama Sarode, Advocate and Sociologist, SAHYOG, NGO, Pune
- 2.Gandhi Jayanti celebration with Swachh Bharat Abhiyan to promote the values and ethics of Mahatma Gandhi
- 3. National Integrity day

- 4. Swatch Bharat Abhiyan, Tree Plantation by Drivers, Single use of Plastic Ban, Use of Paper Bags, Use of LED street lights, Wet and Dry Garbage segregation
- 5. Tree plantation programmes are organized
- 6. The campus has been declared "plastic free" zone
- 7. Tobacco smoking, chewing of pan-masalas and gutka is prohibited in the Institute campus. Health hazards caused by tobacco smoking are repeatedly highlighted through different events.
- 1. Following activites carried out in 2016
- 1.Gandhi Jayanti celebration with Swachh Bharat Abhiyan to promote the values and ethics of Mahatma Gandhi
- 2. National Integrity Day
- 3. National Integrity Day
- 1. Following activites carried out in 2017
- 1.53rd Birth Anniversary of Swami Vivekananda's Birth Anniversary
- 2.125thbirth anniversary celebration of Bharat Ratna Dr. Babasaheb Ambedkar
- 3. Awarness Program on Women Harassment at Workplace by Mrs. Rama Sarode, Advocate and Sociologist, SAHYOG, NGO, Pune
- 4. Gandhi Jayanti celebration with Swachh Bharat Abhiyan to promote the values and ethics of Mahatma Gandhi
- 5. National Integrity day
- 1. Following activites carried out in 2018
- 1.128th birth anniversary celebration of Bharat Ratna Dr. Babasaheb Ambedkar
- 2. International Day of YOGA
- 3. Vigilance Awareness Week and Integrity pledge taking Ceremony
- 4. Celebrated Gandhi Jayanti and Plantation Drive
- 5. Heartfulness Meditation programme
- 6. Swachh Bharat Abhiyan to promote the values and ethics of Mahatma Gandhi
- 7. Sadbhavana Divas and Sadbhavana Pledge taking Ceremony
- 8. NSS Special Camp 2 at Gram Panchayat, Donje Village, Haveli Taluka, Pune District
- 9. Celebrated Hindi Divas and various competitions were organized
- 10. Swatch Bharat Abhiyan, Tree Plantation by Drivers, Single-use of Plastic Ban, Use of Paper Bags, Use of LED street lights, Wet and Dry Garbage segregation
- 11. Tree plantation programs are organized by NSS
- 12. The campus has been declared "plastic-free" zone
- 13. Tobacco smoking, chewing of pan-masalas and gutka is prohibited in the Institute campus. Health hazards caused by tobacco smoking are repeatedly highlighted especially by the NSS unit through different events
  - 1. Following activites carried out in 2019
  - 1.Gandhi Jayanti celebration with Swachh Bharat Abhiyan to promote the values and ethics of Mahatma Gandhi
  - 2. National Integrity day

- 3. National Integrity day
- 4. International Yoga Day

Link for Additional information: http://117.236.165.253/export/Criteria\_1/1.3.1

### 1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.

Response: 381

1.3.2.1 How many new value-added courses are added within the last five years.

Response: 381

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

**Response:** 109.23

### 1.3.3.1 Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
566	415	568	985	150

### 1.3.4 Percentage of students undertaking field projects / research projects / internships (Data for the latest completed academic year).

Response: 50

### 1.3.4.1 Number of students undertaking field projects or research projects or internships.

Response: 215

File Description	Document
List of Programmes and number of students undertaking field projects research projects//internships (Data Template)	View Document

### 1.4 Feedback System

### 1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

**Response:** B. Any 3 of the above

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 1.4.2 Feedback processes of the institution may be classified as follows:

**Response:** B. Feedback collected, analysed and action has been taken

File Description	Document	
URL for feedback report	<u>View Document</u>	

### **Criterion 2 - Teaching-learning and Evaluation**

### 2.1 Student Enrollment and Profile

### 2.1.1 Demand Ratio (Average of last five years)

**Response:** 5.36

### 2.1.1.1 Number of seats available year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
448	398	423	399	350

File Description	Document
Demand Ratio (Average of Last five years) based on Data Template upload the document	View Document
Any additional information	View Document

### 2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the last five years (Excluding Supernumerary Seats)

**Response:** 65.17

### 2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
62	60	52	70	71

File Description	Document
Average percentage of seats filled against seats reserved (Data Template)	View Document
Any additional information	View Document

### 2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

### **Response:**

DIAT identify/assess students as slow learners and advanced learners based on their performance in regular tests, class interactions, and also in one to one interaction with students.

We give importance on improving the performance of slow learners by conducting special classes on Engineering Mathematics and related topics like CFD, Modeling and Simulation.. Also, faculty spares time to sit with those students individually to cope up with the subject. Through a mentor-mentee system all kinds of support are provided to the slow learners.

The continuous efforts taken by the faculty towards the slow learners has resulted in students' understanding in their chosen domain, improved results and pass percentage. All the programs have dedicated Course Coordinator /Mentors, who shall also audit the welfare of our students. The program coordinators also identify other skills, strengths and methods to encourage them to improve them which helps build self-confidence resulting in improvement in academic performance. All necessary emotional and professional counselling is provided and also provides extra attention to build additional skills which makes them employable. Students are also encouraged to register for MOOC, NPTEL courses.

Advanced learners are given opportunities to be part of innovative research projects through Institute Innovation Cell and encourage them to publish research papers in peer reviewed journals. They are given opportunity to participate in paper presentations in conference, seminars and workshops to gain more knowledge and skills. DIAT gives an opportunity to take part in technical competitions such as Hackathons, RoboCon, Technical Projects etc. Advance learners also help slow learners through peer learning. Since, DIAT admit Service officers, DRDO Scientist, and officers from PSU Industry as sponsor students, this kind of unique environment helps slow learners to improve their skills, confidence and knowledge level through interactions, discussions and joint practical sessions with the serving officers and scientists having vast field experiences. Industrial sponsored students and Students officers also give orientation to civilian /GATE students that shall improve confidence, presentation skills.

File Description	Document
Paste link for additional information	View Document

### 2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year)

Response: 8.11

### 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

#### **Response:**

DIAT offers postgraduate programs in engineering and applied science streams. Considering the background of the students in each program, DIAT recognizes the need to prepare students as problem solvers as our highest priority, enabling them to address diverse future scientific challenges. DIAT

curriculums are structured such that each concept starts with a problem description, and students put theory into practice by applying critical and collaborative problem-solving abilities to generate innovative solutions. Almost every program has been enhanced with problem-based, hands-on student-centric methodologies

DIAT offers students centric methodology include:

### 1. Experiential Learning:

### 1. Project work

Project work is organized in two phases

- a. Mini project and Major Projects this is an essential element of each program
  - 1. Field Projects in industry
  - 2. Participation in competition at various level

Students are encouraged to participate in National and International Level workshops and problem-solving competitions for Real-time exposure.

#### 1. Field Visits

Faculty identifies and propose Academically significant Field visits and Surveys

### 1. Industrial Visits

DIAT is located in the city of industrial hub. Each department takes advantage of that and plans & Organizes regular industrial visits for students to expose industrial work culture. Industry visit is part of our academic calendar.

#### 1. Guest Lecture

Weekly/fortnightly Distinguish lecture series by eminent experts from industry and academics from across the world are organized to supplement the teaching & learning process.

### 1. Participated Learning (Team and Group work):

- 1. DIAT organizes students' activities to promote teamwork activities and Camp of NSS, institutional social responsibility through Red Cross, Village Adoption, Tree plantation. Swatch Bharat and Health awareness camp to help students learn the art of living in a team for Social and community welfare.
- 2. Participating in Technical projects as a team organized by DIAT
- 3. Practical and workshops in all individual and group work under the guidance of faculty are regularly organized and conducted.

### 1. Problem-solving Methodology:

1. Case studies: The case study method is adopted in most of the courses along with live examples to

- give the students logical thinking and practical knowledge to develop problem-solving abilities.
- 2. **Research Activities:** DIAT offers compulsory research activities conducted in each program under the guidance of faculty where the students of different semesters get knowledge about the emerging area and help them promote research aptitude.

### 2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

#### **Response:**

DIAT faculty regularly uses online education resources, social networking sites, blended learning platforms like google classroom, google meet, etc, to deliver lectures and provide an enhanced learning experience. YouTube, Emails, WhatsApp groups, Zoom, and Google classrooms are used as platforms to communicate, provide material and syllabus, make announcements, conduct tests, upload assignments, make presentations, address queries and share information. These ICT tools are effectively used during COVID19 lockdown and maintain academic calendar timelines. Teachers are trained in facilitating international academic interactions, meetings, conference by WEBX, MSTeams, ZOOM, Gmeet etc. Key ICT related facilities available at campus are listed below:

**Data Centre:** DIAT has various central facilities for software and hardware for both students and faculty members. Virtual Classroom and video Conferencing facilities helped in e-content creation and delivering online lectures. During lockdown using data center facility and using different software (licensed as well as open / free software) faculty recorded, edited and created e-content.

**NPTEL & MOOC Courses**: Courses from expert IIT faculty in NPTEL lectures and MOOC courses are available to all faculty and students. These online courses act as excellent reference material for both teachers and students for usage along with their regular coursework. DIAT also recognized credit obtained through NPTEL and MOOC courses.

**Journals and E-Books:** Library infrastructure extensively support students for accessing online resources. A wide range of subscriptions of journals and E-books are available online to students for both on-campus and off-campus access. Electronics journals from major scientific societies like IEEE, ACM, ASME, Springer, Science direct, OSA, APS, ACS,SAGE etc.

File Description	Document
Provide link for webpage describing the "LMS/ Academic management system"	View Document

### 2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Response: 8.11

Response: 53		
File Description	Document	
Upload year wise, number of students enrolled and full time teachers on roll.	View Document	
mentor/mentee ratio	<u>View Document</u>	
Circulars pertaining to assigning mentors to mentees	View Document	

### 2.4 Teacher Profile and Quality

### 2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

**Response:** 71.43

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

### 2.4.2 Average percentage of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit. year-wise during the last five years

Response: 89.99

### 2.4.2.1 Number of full time teachers with *Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt.* year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
48	45	43	45	44

File Description	Document
List of number of full time teachers with Ph D/D M/M Ch/D N B Superspeciality/DSc/D Lit and number of full time teachers for 5 years	View Document
Any additional information	View Document

### 2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

**Response:** 7.51

### 2.4.3.1 Total experience of full-time teachers

Response: 398

File Description	Document
List of Teachers including their PAN, designation, dept and experience details	View Document
Any additional information	View Document

### 2.4.4 Average percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the last five years

Response: 500

### 2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government/Govt. recognized bodies year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
53	50	48	50	49

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters (scanned or soft copy)	View Document

### 2.5 Evaluation Process and Reforms

2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Response: 31.8

### 2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
30	27	14	39	49

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File Description	Document
List of Programmes and date of last semester and date of declaration of results	View Document
Any additional information	View Document

### 2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

### Response: 0

### 2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

## 2.5.3 IT integration and reforms in the examination procedures and processes (continuous internal assessment and end-semester assessment) have brought in considerable improvement in examination management system of the institution

#### **Response:**

IT integration and reforms in the examination procedures and processes have brought considerable improvement in examination management system of the institution. ERP system is partially implemented in the office of CoE and some of the functions are become easy for operation such as student registration and result processing etc.

The Institute is following a continuous evaluation system. A typical theory course will have three assessment tests carrying 10% marks each to be conducted at an appropriate interval; one or two quizzes/assignments carrying 20% marks and an end semester examination carrying 50% marks. Marks against each component to be entered by the Instructor or Faculty in the ERP System.

File Description	Document
Link for additional information	<u>View Document</u>

### 2.5.4 Status of automation of Examination division along with approved Examination Manual

**Response:** Only student registration and result processing

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	View Document
Any additional information	View Document

### 2.6 Student Performance and Learning Outcomes

2.6.1 The institution has stated learning outcomes (generic and programme specific)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents

#### **Response:**

All the programs of DIAT have a well-defined program specific outcomes, program outcome, and course outcomes. The curriculum for each program is designed to meet the specified outcomes. Course Outcomes for courses in the curriculum are defined by the course coordinators and faculty offering the course by taking every care to organize the course's professional orientation. For each course the respective program, Course Outcomes (CO) are plotted and mapped to Program Outcomes (PO)and Program Specific Outcomes (PSO) using the program formulation.

At the beginning of each semester, the course coordinator and instructor discuss the COs with all the students enrolled in that course. This comprehensive discussion covers the COs and how that is translated into the: Course plan / Lesson plan, Pedagogy, Evaluation components, and Evaluation scheme. This ensures that all students understand the linkage between the evaluation and the course outcomes.

The evaluation components, weightage and maximum marks are first defined for each course by the PGC committee. The structured assessment of each course includes;

1) Three continuous assessments, 2) One Seminar/Assignment and 3) End semester exam.

After the end semester exam, student, course instructor, and course coordinator feedback are discussed at the department level. All suggestions and corrective measures of the program are made through the Board of Studies (BoS), followed by approval through PGC and Academic Council.

#### Weblink for the syllabi of all the programs:

https://www.diat.ac.in/wp-content/uploads/2021/01/Course-of-Study-for-P.G-Programme-2020-22\_Final.pdf

File Description	Document	
Upload COs for all courses (exemplars from Glossary)	View Document	
Paste link for Additional Information	View Document	

### 2.6.2 Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution

### **Response:**

DIAT has adopted outcome-based education for all PG programs to ensure the attainment of course outcomes and program outcomes. The objective and outcomes are properly mapped for evaluation of students so that PSO's are attained. The DIAT adopts both direct and indirect assessment methods to ensure PO's and CO's attainments.

#### 1. Direct Assessment methods

- Internal Assessment Test
- Laboratory Work Performace
- Mini projects
- Assignments
- End term Theory Result The score of this assessment is considered for evaluation CO's.

#### 1. Indirect Assessment Methods

- Feedbacks
- Co-curricular activities
- Extracurricular activities

Academic Section takes care of online feedback at the end of each semester. The feedback mechanism is used to improve the teaching-learning process in outcome-based education.

The Number of students who completed M.Tech and Ph.D during the period of assessment is evidence of the attainment of the program outcomes. At the MTech level, program outcomes are measured through students' progress to higher studies in India or abroad. Another measurement of attainment is students' placement in companies and institutions.

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for Additional Information	View Document

### 2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Response: 100

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 240

# 2.6.3.2 Total number of final year students who appeared for the examination conducted by the Institution.

Response: 240

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination	<u>View Document</u>
Paste link for the annual report	<u>View Document</u>

### 2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning	process
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Response: 3.47

File Description	Document
Upload database of all currently enrolled students	View Document
Upload any additional information	View Document

### **Criterion 3 - Research, Innovations and Extension**

#### 3.1 Promotion of Research and Facilities

# 3.1.1 The institution's Research facilities are frequently updated and there is a well defined policy for promotion of research which is uploaded on the institutional website and implemented

### **Response:**

DIAT encourages young faculty members to undertake research projects and also funds them for Defence based research activities like Game theory, Effluent etc. Also allows participating in collaborative research projects with DRDO scientist. The faculty is encouraged to seek research funding from the govt and private agencies. The industry also is approached time to time for undertaking consultancy as well as the customized courses. The same is also organized for the public sector undertaking.

Equipments Induction Programme was implemented—DIAT went through up gradation of laboratories. The plan was in phased manner with latest State – of – the Art equipments on-par with IIT, IISc & International Universities.

DIAT upgraded its propulsion complex with laboratories to test air, solid & liquid propulsions.

Documents: Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy and its adoption.

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	

# 3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 18.76

## 3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
17.25	17.48	9.95	25.34	23.76

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File Description	Document
Minutes of the relevant bodies of the University	View Document
Institutional data in prescribed format	View Document
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View Document

3.1.3 Percentage of teachers receiving national / international fellowship / financial support by various agencies for advanced studies / research during the last five years.

Response: 1.2

3.1.3.1 The number of teachers who received national / international fellowship / financial support by various agencies for advanced studies / research year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
0	1	1	1	0

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the award letters of the teachers	View Document

3.1.4 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the last five years.

**Response:** 36

3.1.4.1 The Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
0	03	05	18	10

File Description	Document	
Institutional data in prescribed format	View Document	
Any additional information	View Document	

### 3.1.5 Institution has the following facilities to support research

- 1. Central Instrumentation Centre
- 2. Animal House/Green House
- 3. Museum
- 4. Media laboratory/Studios
- 5. Business Lab
- 6. Research/Statistical Databases
- 7. Mootcourt
- 8. Theatre
- 9. Art Gallery
- 10. Any other facility to support research

**Response:** A. 4 or more of the above

File Description	Document
Paste link of videos and geotagged photographs	View Document

3.1.6 Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by national and international agencies (Data for the latest completed academic year)

Response: 63.64

3.1.6.1 The Number of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other similar recognitions by national and international agencies.

Response: 7

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 3.2 Resource Mobilization for Research

3.2.1 Extramural funding for Research (Grants sponsored by the non-government sources such as industry, corporate houses, international bodies for research projects) endowments, Chairs in the University during the last five years (INR in Lakhs).

#### **Response:** 0

3.2.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years (INR in Lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

File Description	Document
Institutional data in prescribed format	View Document

### 3.2.2 Grants for research projects sponsored by the government agencies during the last five years (INR in Lakhs).

**Response:** 2076.16

### 3.2.2.1 Total Grants for research projects sponsored by the government agencies year-wise during the last five years (INR in Lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
1011.09	206.55	355.02	190.05	313.45

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the grant award letters for research projects sponsored by government	View Document

### 3.2.3 Number of research projects per teacher funded by government and non-government agencies during the last five years

Response: 1.37

### 3.2.3.1 Number of research projects funded by government and non-government agencies during the last five years.

Response: 70

### 3.2.3.2 Number of full time teachers worked in the institution year-wise during the last five years...

Response: 255

File Description	Document
Supporting document from Funding Agency	View Document
Institutional data in prescribed format	View Document

### 3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge.

### **Response:**

Institute is proud to start an incubation center to enable its students get firsthand experience in promote innovation driven activities at the institute and provide a comprehensive and integrated range of support including space, mentoring, training programs, networking and an array of other benefits.

The institute provides conducive environment for research-and-technology-driven innovations. The five key constituents of the ecosystem for innovations are :

vTechnology

vResearch

vInnovation

vIndustry

Each one of the above acts as a feeder to the next and creates a ripple effect on building innovative products

### **Activities Envisaged**

- 1. To provide common facilities to incubate viz. office support, equipment support and technology support.
- 2. To give Training, counsel, guide and mentor for setting up of the enterprise
- 3. To support and promote rural entrepreneurship in the region through training, demonstration and dissemination of technologies and opportunities to the grass root people.
- 4. To assist for setting up of technology exhibition, awareness camps and product development plans.
- 5. To provide support in documentation, publication and patenting of innovations.
- 6. To facilitate and provide the tools for technology development and implementation in the labs.
- 7. Incubation centre conducts entrepreneurship programs such as workshops, Seminars on entrepreneurship development.
- 8.To provide training by experts for marketing the products developed. 9.To provide information about the financial Institutions for establishment and running of the industry

College has taken initiative steps towards developing ecosystem for innovations and knowledge sharing

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methods. The faculty members are empowered to take up research activities utilizing the inherent skills. The Research and Development Cell of our institution to motivate the student and faculty members extends scopes to explore their new ideas in the field of research and development. It also helps to create research culture among faculty members and students.

File Description	Document	
Upload any additional information	View Document	
Paste link for additional information	View Document	

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.

Response: 28

3.3.2.1 Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
5	6	11	3	3

File Description	Document
Institutional data in prescribed format	View Document

3.3.3 Number of awards / recognitions received for research/innovations by the institution / teachers / research scholars / students during the last five years.

Response: 27

Response. 27

3.3.3.1 Total number of awards / recognitions received for *research* / innovations won by institution / teachers / research scholars / students year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
4	6	3	7	7

File Description	Document
Institutional data in prescribed format	View Document
e- copies of award letters	View Document
Any additional information	View Document

### 3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee

**Response:** A. All of the above

File Description	Document
Code of ethics for Research document, Research Advisory committee and ethics committee constitution and list of members on these committees, software used for Plagiarism check, link to Website	View Document

3.4.2 The institution provides incentives to teachers who receive state, national and international recognitions/awards
1.Commendation and monetary incentive at a University function
2.Commendation and medal at a University function
3. Certificate of honor
4.Announcement in the Newsletter / website

**Response:** B.. 3 of the above

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 3.4.3 Number of Patents published / awarded during the last five years.

### **Response:** 9

3.4.3.1 Total number of Patents published / awarded year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
5	3	0	0	1

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

### 3.4.4 Number of Ph.D's awarded per teacher during the last five years.

Response: 3.38

3.4.4.1 How many Ph.D's are awarded within last five years.

Response: 135

### 3.4.4.2 Number of teachers recognized as guides during the last five years

Response: 40

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
URL to the research page on HEI web site	View Document

# 3.4.5 Number of research papers per teachers in the Journals notified on UGC website during the last five years

Response: 16.28

# 3.4.5.1 Number of research papers in the Journals notified on UGC website during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
185	134	192	124	179

File Description	Document
Institutional data in prescribed format	View Document

### 3.4.6 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:** 5.38

3.4.6.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
37	37	45	47	103

File Description	Document
Institutional data in prescribed format	View Document

### 3.4.7 E-content is developed by teachers :

- 1. For e-PG-Pathshala
- **2.For CEC (Under Graduate)**
- 3.For SWAYAM
- 4. For other MOOCs platform
- **5. Any other Government Initiatives**
- **6.For Institutional LMS**

**Response:** D. Any 2 of the above

File Description	Document
Institutional data in prescribed format	View Document
Give links or upload document of e-content developed	View Document

# 3.4.8 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

**Response:** 7.8

File Description	Document
Bibliometrics of the publications during the last five years	View Document
Any additional information	View Document

# 3.4.9 Bibliometrics of the publications during the last five years based on Scopus/Web of Science - hindex of the Institution

**Response:** 37.5

File Description	Document
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document
Any additional information	View Document

### 3.5 Consultancy

3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual and encourages its faculty to undertake consultancy.

### **Response:**

Broad definition of what constitutes consultancy: "The provision of expert advice and work crucially dependent on a high degree of intellectual input which is for commercial or non-commercial purpose and without the creation of new knowledge." This also includes an assignment or job basically for providing expert advice, problem solving, targeted training, testing and laboratory based experimental work, market research and survey.

#### Its essential features are:

- ? Consultancy is work of a professional nature, undertaken by the faculty/staff in their field of expertise, for clients outside the institution, for which some financial return is provided;
- ? Unlike research, it does not have as a prime purpose of generation of new knowledge;
- ? Consultancy will produce some form of contracted output which may be partly or wholly owned by the client;
- ? The Institution normally does not have freedom of publication over the results of consultancy;
- ? It tends to be governed by short-term contracts, making minimal use of Institution's resources and involves extra work for existing faculty/staff rather than the employment of new faculty/staff.

File Description	Document
Upload soft copy of the Consultancy Policy	View Document
Upload any additional information	View Document

# 3.5.2 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

Response: 563.4

# 3.5.2.1 Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
300.0	57.0	68.4	78.8	59.2

File Description	Document
Institutional data in prescribed format	View Document

### 3.6 Extension Activities

3.6.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years.

### **Response:**

**During the year 2015-16** Blood donation Camp organized by Ammucare, Pune ,Swachhta Drive organized by the DIAT Swachha Bharat Mission Committee, almost 168 students particiapated in the programmes.

In the year 2016-17, Plantation of Saplings Programmeoganised by DIAT(DU) NSS centre, it was attended by 130 students.

**In the year 2017-18** NSS Special**Camp**at GohreBudruk Village, Haveli Taluka, Pune District from 19th to 23rd March 2018., NSS health check-up camp on 22nd March 2018 and attended by 100 students.

**During the year 2018-19**, As a part of social services activity, Dept of Materials Engg., DIAT organized a cleanliness awareness drive and Plantation of saplings under Swacha Bharat Abhiyan in Mahabaleshwar, Satara on 25th Oct 2018., Week Long 'Swachhta Drive' at DIAT Campus, organized by DIAT Swachha Bharat Mission Committee & Ministry of Youth Affairs, Blood donation camp was organized at Donage Village, Haveli, Pune on 27th Mar 2019 organised by DIAT and Red Cross India, more than 100 students attended the programmes.

**During the year 2019-20**, Swachhata Pakhwada-2020 was organized and the entire DIAT campus, technical as well as Residential, Hostel, etc was cleaned in a span of a week.

File Description	Document
Paste link for additional information	<u>View Document</u>

3.6.2 Number of awards received by the Institution, its teachers and students from Government /Government recognised bodies in recognition of the extension activities carried out during the last

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### five years

**Response:** 13

3.6.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
4	3	1	4	1

File Description	Document
Institutional data in prescribed format	View Document

### 3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

**Response:** 40

3.6.3.1 Number of extension and outreach programs conducted by the institution those through NSS/NCC, Government and Government recognised bodies during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
15	1	2	19	3

File Description	Document
Reports of the event organized	<u>View Document</u>
Institutional data in prescribed format	View Document

### 3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Response: 93.07

### 3.6.4.1 Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
856	45	165	956	215

File Description	Document
Report of the event	<u>View Document</u>
Institutional data in prescribed format	<u>View Document</u>

#### 3.7 Collaboration

3.7.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/internship per year

Response: 10.6

3.7.1.1 Total number of Collaborative activities with other institutions / research establishment / industry for research and academic development of faculty and students year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
12	14	05	10	12

File Description	Document
Institutional data in prescribed format	View Document

3.7.2 Number of functional MoUs 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: 29

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

2020-21	2019-20	2018-19	2017-18	2016-17
2	7	8	8	4

### Self Study Report of DEFENCE INSTITUTE OF ADVANCED TECHNOLOGY(DEEMED TO BE UNIVERSITY U/S 3 OF THE UGC ACT 1956)

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the MoUs with institution/ industry	View Document

### **Criterion 4 - Infrastructure and Learning Resources**

### 4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc.

### **Response:**

The DIAT is located Girinager spread over 496 acres. It is a premier autonomous institute under the Ministry of Defence, engaged in imparting technical education, in niche areas at PG, MS by Research & Ph.D levels over the last 68 years, in its various forms & capacities

DIAT has well equipped with all adequate infrastructure and physical facilities for teaching and learning as specified by the statutory bodies viz., modern laboratories with state-of-art equipment, Smart classrooms, Computing Facility with simulation / analysis software etc.

### Classrooms /Seminar Hall / Conference Hall

Institute has adequate number of well furnished, well ventilated, spacious classrooms / Seminar/conference halls equipped with LCD facility, Wi-Fi connectivity and smart boards for effective teaching and learning.

#### Laboratories

DIAT is very well equipped with laboratories facilities to conduct experiments and for hands on training of students. We have also very specialized laboratories with state-of-art equipment facilities to carry out advanced research viz. Small Angle X-Ray Scattering System, NMR, Raman Spectrometer, etc.

### **Computing Facilities**

### **Data Centre**

Data Centre with 1 Gbps backbone network facility has been set up in the technical area for providing IT and computing requirements of DIAT. It is providing following services in the Campus;

### **Campus wide Network:**

Internet is provided to all the Students, Faculty members, Officers and Scientists in DIAT (DU) technical area as well as hostels. All computers are connected to the internet over high speed cables.

**DIAT Wi-Fi Network:** Full wireless coverage is currently provided at DIAT (DU) campus, it covers academic buildings, technical area, Hostel and Guest House area. This Wi-Fi network will help the students and faculty members to access to e-learning resources seamlessly.

**NKN Facility:** The NKN comprises of an ultra-high-speed 100 mbps internet access, complimented with a distribution layer at appropriate speeds. The network is designed to support Overlay Networks, Dedicated Networks, and Virtual Networks.

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#### Video Conference and Virtual Class Room:

Virtual Class Room to conduct interactive online lectures and meetings. It can support HD quality video streaming and video recording facility as well.VC room is used to conduct online meetings and lectures through DRDO labs spread all over the country.

#### **DIAT Mail Server:**

DIAT has provided its own mail service for students, faculty members and staff members. Mail service is available on Intranet and Internet simultaneously.

### **DRONA** facility:

DRDO has provided its own network known as DRONA, which connected through all of the labs in the country. This facility is limited HoDs /Officers in the campus. Data Centre has major role to provide this facility in the campus.

#### **Central Library**

IC&L is fully automated with LIBSYS Library management software and RFID technology. It has vast collection of more than 50000 Books and subscribes to good number of Online resources such as IEEE, ASME, ACM, Scopus, Springe link etc.

### **Institute Innovation Centre**

Aims to establish and promote entrepreneurship and start-up centers in the field of futuristic technologies, in addition to defence technology.

File Description	Document
Upload any additional information	View Document

# 4.1.2 The institution has adequate facilities for cultural activities, yoga, games and sports (indoor & outdoor); (gymnasium, yoga centre, auditorium, etc.,)

#### **Response:**

The Institute is committed to create a balanced atmosphere of academic, cultural and sports activities to groom students to have a holistic personality. DIAT provides a serene environment and a salubrious climate to pursue academic endeavors as well as undertake various indoor and outdoor sports activities in order to be mentally and physically fit.

DIAT is well equipped with adequate sports & cultural facilities for students to showcase their talent, skills, etc. Various sports and cultural competitions are organized regularly by the institute to develop a spirt of sportsmanship among students and encourages the students to participate in inter and intra department, university level sports and cultural events such as SPANDAN, KRIYA, PRAYAG,

IMPULUSE etc. Winning students are honored with medals, trophies and certificates.

DIAT has multipurpose auditoriums with ICT facilities for hosting seminars/conferences/workshops and various literary and cultural activities. It also has sports ground, Gymnasium, Multipurpose halls, NSS center etc.

#### SPORTS FACILITY

The following indoor/outdoor sports facilities are available at DIAT

- Sports ground
- Badminton court
- Basketball court
- Cricket ground
- Football ground
- Volley Ball ground
- Lawn Tennis Court
- Basketball court
- Table Tennis
- Chess
- Carom

State of the art Gyms are also facilitated by the institute for the students to develop their physical strength and fitness.

#### **Cultural Activities**

A DIAT, education is limited not only to academic excellence, but also to the overall development of the students. Keeping this in mind, institute encourages students to participate in extracurricular activities also such cultural activities, community service etc. DIAT conducts annual cultural fest / other activities through students' clubs /committees such as PRAYAG, IMPULSE etc. Instituted has sufficient modern auditoriums, open space, Halls, to host any big events.

File Description	Document
Upload any additional information	View Document
Geotagged pictures	<u>View Document</u>
Paste link for additional information	View Document

### 4.1.3 Availability of general campus facilities and overall ambience

### **Response:**

Ensconced in the Sahyadri hills, adjacent to the famous Sinhagad Fort and embanking the vast Khadakwasla Lake, the campus of DIAT, spread over 496 acres, provides a serene environment and a

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salubrious climate to it pursue academic endeavors as well as healthy resort to live life to its fullest. At DIAT one gets to enjoy unpolluted clean air and rejuvenating atmosphere of hilly township.

DIAT is a fully residential institute which is self-contained with modern amenities. The Institute has a wide range of indoor and outdoor recreational facilities, an open-air theatre, Canteen. Community center, KV Vidyalaya, Medical, shopping, banking and postal facilities are also available within the campus.

DIAT is also not very far from the main city area of Pune, the cultural capital of Maharashtra. Pune is the home for many a software & hardware companies and also happens to be a hub of DRDO labs. All in all, it is a perfect locale for an institute of its kind.

Some of the major general facilities that are available at institute and support in providing a good ambience for a pleasant learning experience at DIAT;

- Self -sufficient campus with all amenities
- Residential Quarters / Married accommodations for officers
- Hostel blocks sufficient no. rooms for girls & boys
- Two new hostels and Studio apartment for foreign and Visiting /Guest faculty.
- o Caretakers and housekeeping services are provided in all hostels during day and night
- CCTV cameras and 24x7 security personnel in hostels for ensuring students' safety
- Studio apartments for foreign students /Visiting professors
- Guest house and special rooms at Hostel for convenience of the visitors
- Approach ramps and lifts to facilitate differently abled students
- Electric power backup in technical area provided by standby power generators
- Medical facility available to students, Faculty, staff and their family members is provided by MI Room at DIAT with help of Doctors and paramedical staff.
- o Sports grounds, State -of art Gyms and Indoor and Outdoor sports facility
- Multipurpose auditoriums to host events
- Kendriya Vidyalaya School & Kindergarten Tiny Tots
- Community center
- Banking with ATM Facility
- Post office
- Canteen
- Well maintained Gardens /Lawns
- Fruits and Juice center.
- Yoga and Dance classes
- Laundry services and salons.
- Garage

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for additional information	View Document

### 4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during

### the last five years (INR in Lakhs)

Response: 1.97

# 4.1.4.1 Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
42.71	26.85	28.75	37.14	49.64

File Description	Document
Upload audited utilization statements	View Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

### 4.2 Library as a Learning Resource

# 4.2.1 Library is automated using Integrated Library Management System (ILMS) and has digitisation facility

#### **Response:**

Library services have been fully automated with the latest version of LIBSYS 10. LIBSYS is a user-friendly interface, multi-user and web-based library management system to enhance the total library experience through value-added features and services. The software facilitates the library in providing quick & efficient services. It covers all modules; Acquisition, Cataloguing, Circulation, Serials, enriched web OPAC, etc., The bibliographic database of library resources available is being updated regularly with details of recently acquired Books / Journals/ other resources. The Web OPAC (Online Public Access Catalogue) of the library provides an online facility through the LAN to the users to search the bibliographic databases of entire library resources from any networked computer/laptop within the DIAT campus.

The Library implemented the latest RFID technology. It is integrated with LIBSYS- library management system software that facilitates the library in providing quick & efficient services. RFID helps to secure library materials mobilize the circulation process and enhance user service and reduce theft cases. RFID improved library workflow by reducing non-value-added work processes and allows better accuracy in book collection management.

The Library has developed a Digital Institutional repository using DSpace - open-source repository software to provide instant access to the Institute's research and academic output and other institutional resources on the campus LAN. Currently, IR covers over 1000+ documents of scholarly publications of Faculty, conference proceedings, Thesis, Dissertations, Course curriculum, Question Bank, Newspaper clippings, Annual reports, etc.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	<u>View Document</u>

# 4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga Membership 4. e-books 5. Databases 6. Remote access to e-resources

**Response:** A. Any 4 or more of the above

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

# 4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

**Response:** 209.49

4.2.3.1 Annual expenditure for the purchase of books and journals including e-journals year-wise during last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
218.77033	246.77139	181.12205	121.33963	279.42768

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Audited statements of accounts	View Document
Any additional information	View Document

# 4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year

**Response:** 5.18

4.2.4.1 Number of teachers and students using library per day over last one year

Response: 25

File Description	Document
Details of library usage by teachers and students (Library accession register, online accession details to be provided as supporting documents)	View Document
Any additional information	View Document

### 4.3 IT Infrastructure

4.3.1 Percentage of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities. (Data for the latest completed academic year)

Response: 92.59

#### 4.3.1.1 Number of classrooms and seminar halls with ICT facilities

Response: 25

File Description	Document
Institutional data in prescribed format	View Document

# 4.3.2 Institution has an IT policy, makes appropriate budgetary provision and updates its IT facilities including Wi-Fi facility

#### **Response:**

DIAT has implemented IT policy for Network Services, Internet & Email access and it is strictly applicable to all users including Student, Faculty, Guest

and Staff etc. Budgetary provision made for IT services is approximately about Rs. 28 Lakhs (Includes Internet & Email Services) Ref Invoice attached.

Electronic resources such as e-journals, e-books, databases, etc. made available by the Central Library, DIAT are for academic use. These resources can be searched, browsed, and material may be downloaded and printed as single copies of articles as is done in the case of printed library material. Downloading or printing of a complete book or an entire issue or a volume of one or more journals (called systematic downloading) is strictly prohibited. Use of robots, spiders or intelligent agents to access, search and/or systematically download from the e-resources is also prohibited. Any violation of this policy will result in penal action as per the rules and regulations of the Institute. I am aware that Systematic downloading will result in the publisher blocking the entire community of users at DIAT from accessing these resources.

File Description	Document
Upload any additional information	<u>View Document</u>

### 4.3.3 Student - Computer ratio (Data for the latest completed academic year)

**Response:** 1.23

File Description	Document
Student – computer ratio	View Document

### 4.3.4 Available bandwidth of internet connection in the Institution (Leased line)

Response: A. ?1 GBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	View Document

### 4.3.5 Institution has the following Facilities for e-content development

- 1. Media centre
- 2. Audio visual centre
- 3. Lecture Capturing System(LCS)
- 4. Mixing equipments and softwares for editing

**Response:** A. All of the above

File Description	Document	
Institutional data in prescribed format	<u>View Document</u>	
Links of photographs	View Document	

### 4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

Response: 16.01

### 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)

2020-21	2019-20	2018-19	2017-18	2016-17
193	338	312	353	326

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File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	<u>View Document</u>
Audited statements of accounts	View Document

### 4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

### **Response:**

DIAT has in place established systems for the maintenance and utilization of physical, academic and support facilities such as laboratory, computer, sports complex classroom etc.

### Maintenance of Library Facilities:

The books and journals are maintained against disfiguring. Book binding is carried out on regular basis for damaged books to avoid further damage. Stock verification is done as a part of regular monitoring and control. Pest control is done on regular basis for maintaining books safe from termites. Library Advisory Committee has been constituted for co-ordination in respect of recommendations/suggestions of new initiatives for learning resources. /procurement of journals/books etc. Updating and maintaining of all library records · Addressing issues and grievances of users · Update and upgrade the library contents, periodically as per updates in curriculum

**Computers:** The Institute has an adequate number of computers with internet connections and utility software. Computer systems, UPS, Software and Servers are maintained through AMC/periodic maintenance. IT infrastructure is maintained by the head, Data Centre and Coordinated by OIC Data Centre along with departmental coordinator.

Classrooms, Conference Hall: Classrooms and Conference hall are provided with enough seating capacity and LCD projectors. Cleanliness of class rooms and Conference hall is maintained on regular basis. Working condition of audio system, Smart board, LCD projectors etc. is monitored on regular basis by Academic section also by respective Department HoDs.

**Laboratory:** Laboratories are regularly maintained by the Laboratory Assistants. Records of equipment are maintained in Central Inventory records as well as in respective Departments. Equipment are maintained properly, calibrated and serviced periodically. Utilization record of Laboratory is also maintained. Equipment are maintained in working condition through AMC/periodic maintenance.

#### Administration Section & MMG:

The maintenance of the entire physical infrastructure including new construction, classrooms and laboratories, is done through Estate and Works office under the supervision of GE, AGE, JEs of Military Engineering Services (MES) unit. EWO raise infrastructural facilities, maintaince works and properties

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records of institute is maintained by the EWO. Housekeeping services at all the buildings, contract workers for offices and security services are under of Administration and Security Section supervision. DIAT outsources housekeeping security, and contract manpower. Outside areas, internal roads, gardening etc., are maintained of Estate Management Unit of Girinagar, DIAT.

DIAT has a Material and Management Group (MMG). It mandates central purchase and procurement system as per General Financial Rules, 2017. The requisitions for various items are received from the, departments, Schools, sections, after due approval of the competent authority, with the budget allocation and provisions. MMG maintains and deals with annual maintenance of identified services, rate contract of services and consumables, (stationery, store items etc.) for all kinds of open and limited tender processes. Inventory of all the purchased items is maintained by MMG. For better efficiency and smooth functioning of purchase activities, MMG is automated all purchase are done using ERP system.

File Description	Document
Upload any additional information	View Document

### **Criterion 5 - Student Support and Progression**

### 5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the institution, Government and non-government agencies (NGOs) during the last five years (other than the students receiving scholarships under the government schemes for reserved categories).

Response: 30.51

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
146	136	135	167	145

File Description	Document
Upload self attested letter with the list of students sanctioned scholarship	View Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

5.1.2 Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.

Response: 51.24

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

2020-21	2019-20	2018-19	2017-18	2016-17
250	150	250	250	320

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

5.1.3 Following Capacity development and skills enhancement activities are organised for improving

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students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology

**Response:** A. All of the above

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Link to Institutional website	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

File Description	Document
Upload any additional information	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document

### 5.2 Student Progression

5.2.1 Average percentage of students qualifying in state/national/international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 88.37

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

2020-21	2019-20	2018-19	2017-18	2016-17
146	126	125	130	145

5.2.1.2 Number of students appearing in state/ national/ international level examinations (eg:

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# IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
146	150	150	167	150

File Description	Document
Upload supporting data for the same	View Document
Institutional data in prescribed format	View Document

### 5.2.2 Average percentage of placement of outgoing students during the last five years

Response: 11.1

### 5.2.2.1 Number of outgoing students placed year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
40	12	30	28	11

File Description	Document
Institutional data in prescribed format	View Document

### 5.2.3 Percentage of student progression to higher education (previous graduating batch).

Response: 20

5.2.3.1 Number of outgoing student progressing to higher education.

Response: 48

File Description Document

Institutional data in prescribed format View Document

### 5.3 Student Participation and Activities

5.3.1 Number of awards / medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) during the last five years.

### Response: 0

5.3.1.1 Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

File Description	Document
Institutional data in prescribed format	View Document

### 5.3.2 Presence of Student Council and its activities for institutional development and student welfare.

### **Response:**

Student's council provides an opportunity to students to develop their leadership skills through active participation in university administration and students collaboration. The student council is expected to perform following functions:

- 1. Organizing cultural activities and sports activities for students.
- 2. Communicating problems faced by students to Dean and management of Institute.
- 3. Maintaining discipline in University campus.
- 4. Maintaining college campus clean and green.
- 5. Participation in extension activities such as, Swachh Bharat Abhiyan, Tree Plantation, Yoga Day, Blood Donation, NSS camps etc.
- 6. They give their suggestions for purchase of books, magazines for library through respective HoDs
- 7. Representant in Hotesl Management Committee for smooth functioning of Hostel activates.
- 8. Involve in Institute innovation Cell
- 9. Represent in new curriculum development / updating

The following committees have student representatives:

- 1. Anti-Ragging Committee
- 2. Sports & culture Committee
- 3.IOAC
- 4. Alumni Association
- 5. Anti-Sexual Harassement Cell.
- 6. Hostel Commette
- 7. Annual Magazine Committee

#### Students in administration

Our main focus is advising students about organizational matters regarding their studies, representation of student interests in commissions and conferences and the organization of events.

Students are engaged in a number of ways:

- by providing individual and collective feedback on their learning and wider student experience through surveys and other means
- Through engagement in key quality assurance and enhancement processes including reviews and course approval.

#### The institute ensure that:

- every student at every level of every course will have access to representation, and as a result, will be able to influence their learning and wider experience through their representatives;
- student representatives and staff working with them are aware of their responsibilities;
- staff-student committees are forums for two-way dialogue and consultation;
- student representatives on all committees are empowered to raise issues and make meaningful contributions to discussions; every student has a chance to provide feedback individually and anonymously on their learning and wider experience at relevant points in their course of study;
- feedback is analysed and any issues raised are addressed through department, division and University processes in a timely and effective way, always ensuring that the outcomes are fed back to the student body;

students are empowered to engage meaningfully with key quality assurance and enhancement processes.

# 5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

**Response:** 2.8

# 5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
2	4	4	2	2

File Description	Document
Upload any additional information	View Document
Report of the event	View Document
Institutional data in prescribed format	View Document

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### 5.4 Alumni Engagement

5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

### **Response:**

Defence Institute of Advanced Technology (DU) Alumni Association (DIATAA) was registered by the Assistant Registrar of Societies, Pune, Maharashtra, under Societies Registration Act 1860 and Bombay Public Trust Act, 1950 of Maharashtra, on 5th December 2014. The DIATAA registration number is 2022/2014. The objective of the DIATAA is to provide a forum for the Alumni of the Institute; To engage in such academic and social activities as shall contribute towards promoting liaison between the Alumni and the Institute.; To further the cause of Science and technology and keep alive love, spirit, affection, and gratitude for our alma mater. The Total registered Alumni as of 31st December 2021 is 1430, and the contribution is Rs.13,67,000.

Alumni are contributing significantly to the development of institution through support services, technical support, etc. Many alumni are participating many of the DIAT actives of the in one or the other way. Many senior alumni were called as subject expert, for delivering lectures, etc. They are contributing in developing /updating curriculum of various programmes as member of BOS. Many alumni are in technical collaboration with faculty members in research /project/ Joint publication etc. Few of alumni joined DIAT as faculty members in different department.

The DIATAA has designed and developed an independent DIATAA website (https://www.almashines.com/diat) for better networking. It was inaugurated on 28th September 2021. The website communicates the news and stories, events - post, galleries, Batchmates: yearbook and invites batchmates; Find alumni: alumni nearby and globally; careers, Job and internship, etc.

The DIAT has organized the DIAT Alumni Online Meet-2021 on Tuesday 28th September 2021. And invited them back to their Alma mater to cherish all the joyful moments spent together, reminisce the memorable experience, and share stories of success. Also, most importantly, contribute their valuable experience for the growth and development of beloved ALMA-MATER.

File Description	Document
Link for additional information	View Document

# 5.4.2 Alumni contribution during the last five years (INR in Lakhs) Response: D. 5 Lakhs - 20 Lakhs File Description Document Any additional information View Document Link for any additional information View Document

### **Criterion 6 - Governance, Leadership and Management**

### 6.1 Institutional Vision and Leadership

6.1.1 The institution has a clearly stated vision and mission which are reflected in its academic and administrative governance.

### **Response:**

#### Vision:

To be a center of Excellence of international repute for Education, Training and research in Advanced Technologies with a view to strengthen national security and self-reliance.

#### Mission:

To evolve as an Innovative Unique Research University to develop indigenous contemporary Defence related technologies in Navigation Systems, Wireless Sensors, Efficient Propulsion Systems, Weapon Systems for DRDO and Defence Services, provide technological solutions to the Services to optimise combat battlefield effectiveness and above all produce qualified quality manpower which can truly become an instrument for building a strong indigenous technology base in the context of creating a performing Defence Industrial Base in India.

### **Quality Policy:**

Defence Institute of Advanced Technology (DU) is committed to creating a center of Excellence for Education, Training and research in contemporary and futuristic Technologies by way of continual improvement and consistent Innovation in material as well as Intellectual Infrastructure towards customer's delight.

### **Quality Objectives:**

To cultivate core Competencies in Basic & Applied Research in contemporary & Futuristic Technologies.

To attract and nurture Intellectual capital.

To maintain an Eco-Friendly and appropriate Academic Ambience.

To promote professional Development of personnel for productive performance.

To strengthen collaboration with the Armed Forces, Academia, R&D Institutions and Industry.

To generate adequate financial resources for sustainable Growth and Development.

### How Vision is reflected in academic programmes:

Efforts are continuously on to maintain higher standards of quality education and training in the critical area of modern Defence Technologies, thereby enhancing the technical capabilities of DRDO Scientists,

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Service Officers, Officers from Defence Industries and fresh engineering graduates. The institute also prepares trained manpower for industries engaged in "Make in India", campaign of Government of India.

At DIAT, to meet the needs of Armed Forces, DRDO, Defence Quality Assurance, Defense Ordnance Factories, Directorate of Aeronautical Quality Assurance, and other Public Sector undertakings many specialized / customized PG courses are conducted.

In addition to the Ph.D. &M.Tech. Courses, DIAT also conducts variety of specialized short & long term courses. DIAT opened its gates in the year 2006 for the general public, and since then has been admitting students in open category with scholarships to join its Ph.D / M.Tech programmes. Further, to support national education policy for development of skilled manpower, multi-disciplinary research and product development is encouraged by formation of highly interdisciplinary schools in AICTE declared thrust areas i.e. school of Robotics, School of Quantum Computing, School of DataScience.

To boost the ongoing research programmes and also to enhance quality of teaching and training the institute has introduced a scheme of "Visiting Professors/Scientists". The institute is on its way to take a quantum leap in the domain of technical education & research, specific to defense needs.

File Description	Document
Link for additional information	View Document

# 6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

### **Response:**

DIAT has a mechanism for delegating authority and providing operational autonomy to all functionaries to work towards a decentralized governance system. Various levels Committees exist - General Body of DIAT Society, Governing Council, BoM, PMB, Academic Council, Finance Committee Leadership is involved in 1) ensuring organizational management system development, implementation and continuous improvement; Interacting stakeholders effectively; Reinforcing a center of excellence and Identifying organizational needs and striving to fulfill them.

### Decentralization:

Management Level: The General Body of DIAT Society and Governing Council delegates all the academic and operational decisions based on policy to the BoM, Academic Council, 3) PMB and Finance Committee headed by the Vice Chancellor in order to fulfil the vision and mission of the institute.

### Faculty Level:

The institution has a mechanism of providing operational autonomy to various functionaries in order to ensure a decentralized governance system.

1. Faculty members are given representation in various committees/cells nominated by the Vice

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Chancellor, in the Governing body, BoM, FC, IQAC and other committees.

- 2. Various institute level committees have been entrusted to look after subject specific works/matters and make suitable recommendations for consideration by the competent authority.
- 3. Dean Academics is approving authority for utilization of contingency grant and approving of the TDs of faculties
- 4. Dean (Sponsored Research) is approving authority in the matter of project sanction and utilization of the funds
- 5. Dean (Students Affairs) is approving authority in the matter of student related matters.
- 6. HoDs are empowered to sanction Rs. 25,000/- cash purchase of the items,
- 7. Faculty are allowed to collaborate with academic and industry to carryout research, joint project & publication, etc.
- 8. Non-teaching staff are represented in various committees and the IQAC.

### Participative management:

The institute promotes the culture of Participative management at the strategic level, functional level and operational level. by involving staff and students in various activities. All decisions of institutions are governed by management of facts, information and objectives. Both students and faculties are allowed to express themselves of any suggestion to improve the excellence in any aspect of the institute.

### Strategic level

Vice Chancellor, Deans, HoDs, academic coordinators, and staff members are involved in defining the policies and procedures, framing guidelines and rules & regulation pertaining to admission placement, discipline, grievance, counselling, support services, finance, training & development and library services etc. and effectively implementing the same to ensure smooth and systematic functioning of the institute. Suggestions are invited for various agenda items to be considered by the authorities of the institute.

### Operational & Functional level

All statutory bodies like BoM, PMB, AC, headed by the Vice Chancellor, monitor the start of new courses/programs, procurements of equipments, research facilities, infrastructure development, collaboration to other research institutes and student/faculty/staff welfare activities. VC interacts with DRDO, Tri-Service and other government and external agencies. faculty and staff join hands with the VC for the execution of different academic, administrative, extension related, co-and extracurricular activities. Asst Professor have been working as in-charges of various committees of university level.

	File Description	Document	
Link for Additional Information   V		<u>View Document</u>	

### **6.2 Strategy Development and Deployment**

621	Tho	inctitut	ional S	tratagi	c plan is	offoctiv	volv dor	hovol
n. Z. I	i ne	Institu	ionai 5	игатери	c dian is	enecuy	veiv aei	novea.

### **Response:**

DIAT prepares strategic plan taking into consideration the vision, mission and objectives of the institute. Though there is a perspective plan of long term, annual action plan and budgets are prepared to implement these plans effectively at department level and university level.

Prepared plans are deliberated at Deans/HoD level and then put up for the approval of Vice Chancellor/AC/BOM. Then executed at different levels effectively with help of able faculty and staff members. While preparing these strategic plans many elements are considered such as Academic Administration, Teaching & Learning process, Curriculum development, Examination & evaluation, Research and innovation, Infrastructure/Facilities, Human Resource Management, Financial & revenue generation, Industry Interaction/Collaboration/ Placement, entrepreneurship & Innovation, Student support activities etc.

Faculty members are encouraging to undertake research projects from the govt. and other funding agencies. Institute also funds young faculty members to undertake research. The faculty undertake consultancy and conducts customized courses. Further, to support national education policy for development of skilled manpower, multi-disciplinary research and product development is encouraged by formation of highly interdisciplinary schools in AICTE declared thrust areas i.e. school of Robotics, School of Quantum Computing, School of Data Science.

Students are encouraged to participate in national level competitions such as, smart India hackathon, Dare to Dream to showcase their talents. Students have won two times grand finale working on Artificial intelligence, deep learning, computer vision areas.

DIAT provides a platform with the necessary critical thinking, critical questioning, and problem-solving skills, as well as intellectual curiosity, entrepreneurial spirit, and passion for life-long learning, needed for success over their professional career through incubation, start-up schemes, IIC council support. Through the curricular and extra-activities, a sense of social responsibility is imbibed in the students. As part of community engagements, students are participating in Swachata Abhiyan, National integrity day celebration etc through NSS unit of DIAT. Institute promotes women empowerment, Gender Equality, encourage students to take part in Sports and Cultural, health awareness, team building activities by organizing various events.

File Description	Document		
Any additional information	View Document		
Strategic Plan and deployment documents on the website	View Document		
Link for Additional Information	<u>View Document</u>		

# 6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules and procedures, etc.

#### **Response:**

Various committees exist in DIAT like General Body of DIAT Society chaired by Hon'ble Raksha Mantri, Governing Council chaired by Secretory, Dept. of Defence R&D, Board of Management (BoM), Planning

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and Monitoring Board (PMB), Academic Council, Finance Committee headed by Vice Chancellor in order to frame the institutional policies.

The General Body of DIAT Society and Governing Council delegates all the academic and operational decisions based on policy to the 1) Board of Management (BoM), 2) Academic Council, 3) Planning and Monitoring Board (PMB) and 4) Finance Committee headed by the Vice Chancellor in order to fulfil the vision and mission of the institute. Academic Council formulates common working procedures, policies and entrust the implementation with the faculty members.

Decision making is decentralized at different levels too: the level of Departmental Heads, Deans, Director of centers, the Controller of Examinations, Finance Officer, Librarian, the Registrar and the Vice Chancellor.

Regularly meetings are held at all these levels to ensure a seamless and hierarchical process. Further, faculty/HOD/staff meetings are held every month, meetings of Heads of Departments are held every other month, Boards of Studies meet as required, review meetings are held after every major event.

Every process in the University has been mapped, and SOPs have been evolved to test them and operationalize them. The IQAC set-up as an overarching body for the University and subsidiary Cells in the constituent Units keep an overview of the functioning of these various organizational instruments and bodies.

There are also other smaller structures built the overall scheme of things that take care of other organizational matters, such as, Anti-Ragging Cell, Grievance Redressal Cell, International cooperation cell, Hostel Canteen Committee etc., which also play their own role in ensuring a smooth administration in the University.

DIAT modifies local institutional bodies from time-to-time. Routine Orders are issued for their implementation. Dean (Academics) was institutionalized to handle the academic requirement of the University.

Few administrative changes were implemented:

RO 30/2015 Dated: 15th July 2015 – Remuneration to visiting faculty/adjunct faculty/guest lecturers RO 40/2015 Dated: 09th Nov 2015 – Primary and secondary duties of faculty and officers including roles in various committees / other bodies

RO 34/2015 Dated: 02nd Sept 2015 – AIDE memoire for indenting and procurement activities at DIAT, Pune.

RO 33/2015 Dated: 27th Aug 2015 – Review and extension of research projects at DIAT.

RO 30/2015 Dated: 15th July 2015 – Internal audit committee on procurement.

RO 27/2015 Dated: 07th July 2015 – Guidelines for appointment of adjunct faculty.

RO 25/2015 Dated: 23rd June 2015 – Policy for conduct of customized courses by DIAT (DU).

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File Description	Document
Link to Organogram of the University webpage	View Document
Link for Additional Information	View Document

#### 6.2.3 Institution Implements e-governance covering following areas of operation

- 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	View Document	
Details of implementation of e-governance in areas of operation, Administration etc (Data Template)	View Document	
Any additional information	View Document	
Link for additional information	View Document	

### **6.3 Faculty Empowerment Strategies**

# 6.3.1 The institution has a performance appraisal system, promotional avenues and effective welfare measures for teaching and non-teaching staff.

#### **Response:**

An effective performance appraisal system plays a crucial role in managing the organisation in an efficient manner. The institution has an effective Performance Appraisal System for teaching and non-teaching staff and follow the scheme suggested by UGC/DIAT statute viz. Performance Based Appraisal System (PBAS)-CAS,

The university shall send a general circular twice a year, inviting applications for the CAS promotions from the eligible candidates.

Non-Teaching Staff All non-teaching staff are also assessed through annual confidential reports and annual performance appraisal. The various parameters for staff members are assessed under different categories.

#### **Infrastructure:**

- Hygienic working environment and well maintained, individual work stations.
- Laptops are issued to Faculty members

#### **Increments/Incentives:**

- Teaching
  - Annual and special increments on emoluments
  - 3 increments on award of PhD
- Non-Teaching
  - Annual and special increments on emoluments
  - Incentive for acquiring higher qualification

#### Leave:

- Teaching
  - Vacation leave based on academic calendar
  - Paternity leave for male employees
  - Duty leave for attending conferences, Orientation, FDP, to delivering lectures outside, etc.
  - Maternity and Sick Leave as per policy
  - Special leave for exigencies which may arise
- Non-Teaching
  - Maternity and Paternity leave as per policy
  - Earned leave and other leaves are as per policy
  - Duty leave for attending training programs, etc.

#### **Human Resource management:**

- The University organizes specific needs based personal and professional programmes development programmes every semester. These programmes are delivered by established, known experts in their respective fields.
- Yoga and sports events are conducted for health and relaxation techniques.
- Counselling services are offered through a Wellness Centre.

#### **Financial support**

- Faculty provided with financial support to attend conferences / national/international
- workshops and towards membership fee of professional bodies and non –teaching staff also supported to attended training programmes.
- Bonus and Festival advances given to Non-teaching staff.
- Reimbursement of tuition fee
- Faculty encouraged to take consultancy work and get share in revenue and also to establish company through, Incubation scheme
- MACP implemented for Non-Teaching Staff.

#### Health

- MI Room facility
- Medical reimbursement facility

#### Other welfare schemes for Teaching and Non-Teaching

- DIAT employee's society give bonus every year and also offers loans to teaching & non-teaching staff.
- CSD canteen facility
- Allotment of Govt residential accommodations at campus with amenities such as Sports, Gym & Recreation facilities etc.
- Admission to KV School to employee's wards

File Description	Document	
Any additional information	View Document	
Link for Additional Information	View Document	

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

Response: 39.71

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

2020-21	2019-20	2018-19	2017-18	2016-17
12	19	10	32	26

File Description	Document
Details of teachers provided with financial support to attend conferences, workshops etc. during the last five years (Data Template)	View Document
Link for Additional Information	View Document

Other Upload Files	
1	View Document

6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

**Response:** 3

6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
0	4	4	2	5

File Description	Document
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course ).

Response: 26.45

6.3.4.1 Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
13	19	18	11	5

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View Document
IQAC report summary	View Document
Details of teachers attending professional development Programmes during the last five years (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

### 6.4 Financial Management and Resource Mobilization

6.4.1 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

#### **Response:**

#### **Objectives:**

- Ensures DIAT faculty/student/staff/institute growth and development in a planned and phased manner
- Takes into account sustainability as a major concern at every level
- Tailors every plan to suit the vision and objectives of the university
- Factors in sourcing and availability of funds and listing of priorities
- Provide for periodic strategic planning for mobilization, allocation and utilization of resources

#### **Strategies:**

- the university should be financially viable from inception
- develop infrastructure through fundraising (DRDO, MoD, government agencies, foundations, individuals, manage maintenance and operational costs through fees etc)

#### **Management of Finance**

- Finance department is headed by finance officer at a senior level, and supported by an assistant registrar, and internal audit officer (IAO).
- All bills are pre-checked, pre-audited, by IAO before payment.
- Past orders are also counter-signed by FO where bill value exceeds Rs 15000/-
- Double signatory system is followed for cheque signing.
- All purchase required competent authority approval. There is SPC/TPC/CNC meetings. Open tender/Government –e –marketing followed. DRDO purchase manuals followed.
- Bank accounts are operated in name of DIAT(DU).
- Separate bank accounts held for operation of project grants/funds.
- Surprise cash checks.
- Budget estimation/forecast forwarded to DRDO and get approved.
- DIAT centrally funded autonomous body, fully funded by DRDO. CAG audits all financial transactions.
- Statuatory audits carried out by firm of CAs with CAG, submitted to finance committee chaired by VC, for clearance before submitting to governance council.
- Tax related matters handled by Finance.
- Finance Committee monitors internally generated funds
- Finance department team handle day to day transactions
- Finance Officer handles accounts and documentation

File Description	Document	
Any additional information	View Document	
Link for Additional Information	View Document	

# 6.4.2 Funds / Grants received from government bodies during the last five years for development and maintenance of infrastructure (not covered under Criteria III and V) (INR in Lakhs).

Response: 177.3

# 6.4.2.1 Total Funds / Grants received from government bodies for development and maintenance of infrastructure (not covered under Criteria III and V) year wise during the last five years (INR in Lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
33.30	34.00	32.00	40.00	38.00

File Description	Document
Details of Funds / Grants received from government bodies during the last five years (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

# 6.4.3 Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)

#### Response: 2

6.4.3.1 Total Grants received from non-government bodies, individuals, Philanthropers year wise during the last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	2

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Any additional information	<u>View Document</u>
Link for Additional Information	View Document

#### 6.4.4 Institution conducts internal and external financial audits regularly

#### **Response:**

Institution conducts internal and external financial audits regularly

- 1. Institution conducts Internal and Statutory audits regularly through a firm of Chartered Accountants appointed by the Institute. A firm of Chartered Accountant is selected from the panel approved by Comptroller and Auditor General of India (C&AG). Internal Audit is conducted every quarter whereas statutory audit is conducted after the end of the financial year.
- 2. In addition to this, Institute being wholly funded by DRDO, Ministry of Defence. Hence, C&AG audit is also conducted for the financial year.
- 3. Audited financial statements and Audit report is approved by Finance Committee, Board of Management, Governing Council and General Body. These reports are also placed before the house of Parliament for its final adoption.

Institution conducts Internal and Statutory audits regularly through a firm of Chartered Accountants appointed by the Institute. A firm of Chartered Accountant is selected from the panel approved by Comptroller and Auditor

General of India (C&AG). Internal Audit is conducted every quarter whereas statutory audit is conducted after the end of the financial year.

In addition to this, Institute being wholly funded by Dept. of Defence R&D, Ministry of Defence. Hence, C&AG audit is also conducted for the financial year.

Audited financial statements and Audit report is approved by Finance Committee, Board of Management, Governing Council and General Body. These reports are also placed before the house of Parliament for its final adoption.

File Description	Document
Link for Additional Information	<u>View Document</u>

#### **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 by constantly reviewing the teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals.

#### **Response:**

The departmental reviews, in terms of academic and administrative structures, curriculum, infrastructure and facilities etc., are done periodically at various committee meetings, which consists of eminent academicians and scientists. The programme structures, relevance of various programmes/courses, the pedagogy methods, level of practical hands on exposure, quality of faculty, student teacher ratios, infrastructure resources, assessment of graduate and Ph. D programmes, quality of research outputs like publications, patents, etc. Internally, within the departments, appropriate decisions are taken on academic matters like programmes and courses as well as directions of research, thrust areas, etc. through committees such as BoS, and the DRMC etc.

DIAT regularly undertakes upgradation of course curriculum and start of new programs to fulfil the needs of the all stakeholders and deference industry at large by conducting BOS at regular intervals involving experts from DRDO, Tri Services, Academics, and Industries. Teaching learning process has an extensive use of demonstration/practical session along with regular class room teaching as a part of the curriculum.

Apart from the lecture method of teaching, Group discussion, Tutorials, seminars, Case study, Study tours adopted for improving teaching learning process.

While Designing the curriculum Learning outcomes are stated and at the end of semester review is made about the achievement of learning outcomes, Innovations in teaching learning process followed by best of the Institution are also taken note of

Students are also involved in field studies to get some practical experience. Apart from this IQAC takes different quality initiatives in the form of seminars, Workshops, faculty development programme and Other such initiatives to enhance the quality of teaching learning process.

Examination reforms implemented by the institution, in terms of quality of testing instruments, conduct of examination, evaluation procedures and announcement of results.

Continuous efforts are made to improve the research level in the university through awareness building sessions on quality publications, use of software for detecting plagiarism, conducting an internal audit on research level, promoting collaborative research with premier research Institutions.

Faculty members are provided with financial support to attend conferences/workshops and also decided to reimburse towards membership fee of professional bodies. Non – teaching staffs were also encourages attending training programs to update their knowledge and skill level.

DIAT signed MoUs with industries to undertake academic and research collaboration in the areas of mutual interest, Joint R&D in applied futuristic areas of Science and Technology, Joint R&D for development of products, publications & Research Projects.

Online applications were received from GATE qualified candidate for admission to different M Tech programs. From 2021 onwards all M. Tech admission are done through' CCMT.

Experts/Professionals are invited from different industries, organizations and institutions to deliver recent innovations and practices in concerned areas. The feedback from students as well as feedback communicated directly to teachers helps in reviewing areas.

IQAC reviews admin/finance/academic department/ regular meetings/review and implement suggestions to improve process.

File Description	Document
Link for Additional Information	<u>View Document</u>

6.5.2 Institution has adopted the following for Quality assurance 1. Academic Administrative Audit

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(AAA) and follow up action taken 2.Conferences, Seminars, Workshops on quality conducted 3. Collaborative quality initiatives with other institution(s) 4.Orientation programme on quality issues for teachers and students 5. Participation in NIRF 6.Any other quality audit recognized by state, national or international agencies (ISO Certification, NBA).

**Response:** A. Any 5 or more of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Upload details of Quality assurance initiatives of the institution (Data Template)	View Document
Any additional information	View Document
Paste web link of Annual reports of University	View Document

6.5.3 Incremental improvements made for the preceding five years with regard to quality (in case of first cycle), Post accreditation quality initiatives (second and subsequent cycles).

#### **Response:**

**Quality Initiatives undertaken during the years (Post Accreditation)** 

1. Academic and Administrative Audit of the Institute.

UGC and AICTE expert committee reviewed the functioning of DIAT from 23rd to 24th 2018 [ as per UGC [Deemed to be University] Regulations 2016, there shall be a mandatory intensive external review of every deemed to be university once in every five years based on the criteria prescribed by the Commission.]

Peer Review of DIAT by the DRDO was done as per the guidelines laid down under Rule 208 of GFR (General Financial Rules) – 2005. Review by the committee held on 17th March 2017.

- 1. Five PG (M Tech) Programs of DIAT got NBA accreditation
- 2. Participated in all NIRF Ranking (2016 -2021)
- 3. Regular revision of Syllabus undertaken to include various specializations, based on the outcome of feedback from stack holders to support the defence & industry requirements
- 4. Establishment of new schools and new M Tech programs in futuristic technologies such as Quantum tech., Artificial Intelligence, Data Science etc.
- 5. Established Institute Innovation Council (IIC), Incubation Centre, Startup Policies and Consultancy Policies
- 6. Under the start-up scheme a company by faculty has been established.
- 7. DIAT faculty developed some products to prevent and fight against COVID-19 during lockdown
- 8. Conducted many conference, workshops, skill development, entrepreneurship, programmes. Also organised DIAT Distinguish Lecture Series under this many eminent personalities from diverse areas, across the nation called to deliver talk, share their vast experiences with DIAT faculty and

students.

- 9. Rise in number of peer-reviewed journals publication in high impact factor Journals and also H index of university significantly improved over the past 5 years.
- 10. Research collaboration with foreign and Indian universities increased with no. of internships, skilled training, project works, sharing of research facilities etc.
- 11. Strengthen research profile, research support publication, research funding and collaborative research
- 12. Increase in research activities through funded projects by various Governments organisations such as BARC, DBT, DST, DRDO etc.
- 13. Growth in number of Patents granted
- 14. Up gradation of Research infrastructure and Laboratory renovations
- 15. DIAT Statutory Committees meetings are conducted regularly (GB, GC, BOM)
- 16. Regular meetings with academic and administrative staff members were conducted to prepare an action plan for the Institute.
- 17. Conducted Short-term Courses for BDL, HAL, DRDO, NTRO, Tri-Services and other Defence PSU and private industries.
- 18. Revisiting of existing course curriculum as applicable to Defence Technology
- 19. Efforts for the generation of revenue through sponsored research projects to achieve self-sustainability
- 20. Automation Activities: Implementation of ERP system (Ekalvya) Modules for Academic, Examination Section, Administration, Material Management (Store & Purchase), Finance section.
- 21. Enhancement of Wi-Fi connectivity to all classrooms.
- 22. Submission of Data for AISHE portal (every year)
- 23. Initiated number of Extracurricular activities such as Sports, Cultural events etc.
- 24. Efforts for the accreditations by various national and international agencies.
- 25. Improvement of training and placement of students.
- 26. Scientific documentation of the academic records and digitization of information sources and service
- 27. Constructed new hostel blocks constructed for Intentional students, and separate Girls and Boys hostels
- 28.Implemented Biometric of attendance system. (Now face recognition system for attendance is implanted)

File Description	Document
Link for Additional Information	<u>View Document</u>

### **Criterion 7 - Institutional Values and Best Practices**

### 7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

### **Response:**

Our institute always ensures the gender equality through different policies and activities. Every year we review and upgrade the annual gender sensitization action plan, specific facilities provided for women in terms of safety and security, counseling, facilitating for the adequate common rooms, and day care center for young children etc. The institute supports with a women grievance cell for women's empowerment and gender equality. Gender equality policies are one of our priorities across the university and enable specific achievements with the action from all the areas. The DIAT(DU) acknowledges that we share certain values and principles, such as equality, inclusion, respect for human dignity, fairness, human dignity, social responsibility and justice for all the genders equally. Few of the main activates are recognizing the multidimensional representations of women and men, promoting communications that represent unbiased representations of gender equity, conducting workshops that promote diversity and gender-sensitive communication for our employees, organizing gender studies orientation Programmes and conducting regular awareness-raising activities among students, faculty and staff. In the regular classes, faculty members promote working together, fair representations for leadership roles, involving in co-curricular activities, facilitate impartial participation, gender balance in team projects when possible, promote students meeting with faculty, having open and closed sessions with faculty members of the appropriate gender for related scenarios, complaints and counseling during class hours and at hostels. A dedicated cell at our institute deals with cases of sexual / psychological/emotional/physical harassment as per the capability of the college as an academic institution. All the above activities are supported and being executed by our dedicated Women Grievance Cell and Gender Champion Cell of the institute. Further, the safety and security for women is taken care through various means as women security in the technical area as well as all the Hostels, lady wardens, lady doctors and maid in the campus, sexual harassment cell, women grievances cell, all the department have at least one lady faculty. The lady doctor for medical counseling, celebrate women's day by inviting the eminent Women (scientist, faculty, social worker etc), dedicated regular counseling and mentoring of women and dedicated placement cell for girls to enrich the employability are the added values for the gender equality at our institute. Play School and tiny torts schools are established day care unit for the employs of DIAT(DU) and the local society as well.

Thus, the claimed score for this section is 5. The supporting documents/ photo clips / Geotagged photographs can be found at the below weblink.

File Description	Document
Specific facilities provided for women in terms of: a.Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	View Document
Annual gender sensitization action plan	View Document

### 7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

- 1. Solar energy
- 2. Biogas plant
- 3. Wheeling to the Grid
- 4. Sensor-based energy conservation
- 5. Use of LED bulbs/ power efficient equipment

**Response:** A. 4 or All of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

# 7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management
- Waste recycling system
- Hazardous chemicals and radioactive waste management

#### **Response:**

All the primary facilities required for the management of all types of degradable and non-degradable waste are available at our University. However, for the management of hazardous chemicals of solid/ liquid/bio-medical/e-waste are being done with the support of one of a nearest DRDO Laboratory, named high energy material research laboratory (HEMRL), Pashan, Pune. An indigenously developed, patented and fully functional plastics and rubber waste management system is available at our institute which gives additional value at our institute for the management of plastics and rubber wastes. Further, one of our supporting Dept., named material management group (MMG) facilitates every year for the contamination (via proper channel to the proper/certified agencies) of all these wastes. Therefore, our institute has full-fledged mechanism in place for the management of all types of degradable and non-degradable wasteas

- 1. Solid waste management
- 2. Liquid waste management
- 3. Biomedical waste management
- 4. E-waste management
- 5. Waste recycling system
- 6. Hazardous chemicals and radioactive waste management

Thus, the claimed score for this section is 4. The supporting documents/ photo clips/ Geotagged

photographs can be found at the below weblink.

File Description	Document
Geotagged photographs of the facilities	View Document
Any other relevant information	View Document

#### 7.1.4 Water conservation facilities available in the Institution:

- 1. Rain water harvesting
- 2. Borewell /Open well recharge
- 3. Construction of tanks and bunds
- 4. Waste water recycling
- 5. Maintenance of water bodies and distribution system in the campus

**Response:** A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document

#### 7.1.5 Green campus initiatives include:

- 1. Restricted entry of automobiles
- 2. Use of Bicycles/ Battery powered vehicles
- 3. Pedestrian Friendly pathways
- 4. Ban on use of Plastic
- 5.landscaping with trees and plants

**Response:** A. Any 4 or All of the above

File Description	Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

# 7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:

- 1. Green audit
- 2. Energy audit
- 3. Environment audit
- 4. Clean and green campus recognitions / awards

#### 5. Beyond the campus environmental promotion activities

**Response:** A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certificates of the awards received	View Document

#### 7.1.7 The Institution has disabled-friendly, barrier free environment

- 1. Built environment with ramps/lifts for easy access to classrooms.
- 2. Divyangjan friendly washrooms
- 3. Signage including tactile path, lights, display boards and signposts
- 4. Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment
- 5. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading

#### **Response:** E. None of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document

# 7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

#### **Response:**

Our institute takes several initiatives/efforts to create an inclusive environment all the time through various measures. All the initiatives ensures the diversities in tolerance, cultural harmony, regional celebrations, linguistic significance and communal socioeconomic. We have dedicated facilities and team for conducting the programmes to increase and spread the inclusive environment in all the possible dimensions. Our worship place contains all the temples of different religions/God-followers, in which, we all jointly pray and celebrate the religion events every time. Few of our regular events which ensures the inclusive environment are Hindi Pakoda, Cultural Programmes, Hindi/ English Essay, Ganapati puja, Eklavya meet, Diwali, Cultural programmes, Kids activities, and all religionholy/worship events.

Thus, the claimed score for this section is 5. The supporting documents/ photo clips / Geotagged photographs can be found at the below weblink.

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document
Any other relevant information	View Document

# 7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

#### **Response:**

We organize several activities/programmes in outinstitute for inculcating values to be a more responsible citizen as a reflection of our Constitution. We organize various programmes such as Gandhi jayanti, Swachh bharat Abhiyan, promotional talks on the values and ethics of Mahatma Gandhi, National integrity day, National/international yoga day, Constitutional day, Dr. Babasaheb R Ambedkar Jayanti etc., to provide a collimation efforts to sensitize our students, faculty, non-teaching staff and daily supportive staff in our constitutional obligations. We organize several mentoring programme and invited talks to create a more awareness and sensitization at our employs to know the values, rights, duties and responsibilities as a citizen of our country. We have a dedicated SC/ST grievance cell ,women grievance cell, legal cell and RTI cell functioning with the specific objective to provide necessary directions/supports to our students and employs to make them more familiar to our constitutional obligations.

Thus, the claimed score for this section is 4. The supporting documents/ photo clips / Geotagged photographs can be found at the below weblink: http://117.236.165.253/export/Critera\_7/7.1.9\_Constitutional\_Obligations.pdf

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 1. The Code of Conduct is displayed on the website
- 2. There is a committee to monitor adherence to the Code of Conduct
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff
- 4. Annual awareness programmes on Code of Conduct are organized

**Response:** A. All of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	View Document
Any other relevant information	View Document

### 7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

#### **Response:**

Our institute takes a constant efforts to have sustained (or increased) institutional programmes/celebrations at the national/institutional repute as a commemorative events/festivals. We organized severalworkshops/Conferences/ seminars in association with national/international institutions and industries. Few of our such celebrations are Gandhi jayanti, Swachh bharat Abhiyan, International conferences, national integrity day, book exhibition, International Yoga Day, Get Together and Women's Day.

Thus, the claimed score for this section is 5. The supporting documents/ photo clips / Geotagged photographs can be found at the below weblink.

 $http://117.236.165.253/export/Critera\_7/7.1.10\_Code\_of\_Conduct\_for\_students\_teachers\_ad\_onostratprs.pdf$ 

File Description	Document
Geotagged photographs of some of the events	View Document
Any other relevant 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:**

Our institute introduced several best practices, successfully implemented them with the full support of DDR&D and DRDO, and they are in place and fully functional. Few of our remarkable best practices that are successfully in function at this institute are described below:

**Title of the Practice**: The best practices described in this section are being executed via (i) Internal quality assurance cell (IQAC) – ensures and improving the internal academic and administrative quality, (ii)

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International cooperation and placement cell (ICPC) -creates a global research network and impact and (iii) Centre for training & placement (CTP) - Soft skills training provided by the in-house faculty and corporate/industrial experts for the students placements.

**Objective of the Practice:**Our institute has dedicated cells/centers for internal quality assurance, collaborative international programs for both faculty and students and training/placement for our students. The prime objectives of these cells/centers are

- 1. To incorporate and improve the quality and transparency in all the administrative, academic and research activities at the institute.
- 2. To collaborate with the abroad Universities that will create international student opportunities and high-end research collaborations in diverse fields. This collaboration formulates various joint academic programs that will enhance the learning experience of our students and faculty.
- 3. To provide best training to the students to ensure that our graduates are equipped with good quality of technical/soft skills covering oral communication, ability to project them good, identify their personality, developing expertise in group discussions and facing personal interviews etc.

The Context: Our IQAC introduces several guidelines in line with the UGC/AICTE/DDR&D/DRDO for providing a high quality teaching, laboratory components, facilities and contingencies supports to our students and faculty. This cell has a well structured feedback and review mechanism through which it ensures, improves and assures the quality in every academic and administrative activates. Over the past few years, the DIAT (DU) has developed working relationship with many of the best universities in the world. The IQAC and ICPC play a developmental, strategic and coordinating role for internal/national and international collaborations seeking/offering quality technical/management support from/to both national and international institutions. With this national collaborations, few joint researches and conferences activities are initiated at DIAT(DU). Few of the national/international Universities/Institutions/Industries with which the DIAT(DU) has active collaboration are as follows:

- 1. York University, Canada
- 2. Belarus State University, Belarus
- 3. TEL AVIV University, Israel
- 4. Technion Israel Institute of Technology, Israel
- 5. National University of Singapore, Singapore
- 6. National Dong Hwa University, Taiwan
- 7. Deakin University, Australia
- 8. Chonnam National University, South Korea
- 9. Cranfield University, UK
- 10. IITB-Monash Research Academy
- 11. Military Technical Academy, VIETNAM
- 12. Dassualt Aviation, France
- 13. ISAE-SUPAERO, France
- 14. RUDN University, Russia
- 15. Defence Research and Development Organization (DRDO)
- 16. Indian Institute of Science, Bangalore, Karnataka.
- 17. National Chemical Laboratory (NCL-CSIR), Pune, Maharashtra
- 18. C-MET, Pune
- 19. Indian Naval Academy ,Ezhimala, Kerala
- 20. Society for Applied Microwave Electronics Engineering and Research (SAMEER), Mumbai

- 21. National Defence Academy (NDA), Pune
- 22. Space Application Centre (ISRO), Ahmedabad, Gujarat
- 23. Bharat Forge Limited, Pune, Maharashtra
- 24. Indian Navy (INS Hamla) Mumbai, Maharashtra
- 25. Institute of Technology Management (ITM), Mussoorie, Uttarakhand
- 26. Indian Air Force, And Centre For Air Power Studies, RK Puram, New Delhi
- 27. National Technical Research Organisation (NTRO), New Delhi
- 28. Indian Navy HQ, New Delhi, New Delhi
- 29. India Institute of Technology, Madras
- 30. Society for Electronic Transactions and Security (SETS), New Delhi
- 31. National Institute of Advanced Studies, Bangalore, Karnataka.
- 32. National Institute Ocean Technology (NIOT), Pallikaranai, Chennai, Tamilnadu
- 33. Graden Reach shipbuilders & Engineering Ltd. Kolkata
- 34. Mazagaon Dock Ltd. Mumbai

Further, a significant portion of our students come from small towns, cities and simple families. As a result of that many of them need extra inputs in order to develop their technical/soft skills. A practice started by DIAT(DU) via CTP, helps them to acquire their technical/soft skills requirements. The CTP through it mechanism, identifies the specific problems faced by individual student and caters their specific soft skills development needs very skillfully. Few of our regular recruiters in addition to the above listed industries are as follows:

- 1. TATA Consultancy Services Ltd.
- 2. BrahMos Aerospace Ltd.
- 3. Bharat Dynamics Limited
- 4. Indian Navy
- 5. Indian Space Research Organization (ISRO)
- 6. DRDO
- 7. Bharat Forge
- 8. Railtel Corporation of India Ltd.
- 9. Accord Software & Systems Pvt. Ltd.
- 10. Canopus Infosystems Pvt. Ltd.
- 11. HCL Technologies, Chennai
- 12. Air India
- 13. Bharat Electronics Ltd.
- 14. Tech Mahindra
- 15. Mathworks
- 16. Robert Bosch
- 17. INTEL,
- 18. NXP Semiconductors
- 19. ProcSys
- 20. Millennium Semiconductors

The Practice: Research and teaching enrich/upgrade the technical skills directly which in result improves the human values towards the social significance that becomes the most effective instrument for the holistic development of both students and faculty to our nation. These requirements are ensured with our IQAC, ICPC and CTP sections via providing continuous motivation to our faculty and students to gain confidence and involve in several national/international competent/events. DIAT (DU) has participated and coordinated

several events related to higher education and research activities. It is proud to say that DIAT(DU) has won the first prize continuously for two subsequent years in smart India Hackathon. These kinds of experiences and mobility programs have enriched the students, faculty and the institutions. All our dedicated IQAC, ICPC and CTP cells serve as a focal point for developing and maintaining internal/international academic relations with several universities abroad and India. Through these cells, we have initiated several key international activities such as student and faculty exchanges, dual —degrees, remote teaching by international professors, development of joint academic programmes, and co-guiding the PhD students. Particularly providing the soft skills to all the students; helped them in understanding their personality profiles using various psychometric tests which made them to understand their unique strengths and weaknesses and to work upon leveraging their strengths and eliminating their weaknesses.

**Evidence of Success:** Thus, the claimed score for this section is 30. The supporting documents/ photo clips /Geotagged photographs can be found at the below weblink

www.diat.ac.in/IQAC/7.7

File Description	Document
Best practices in the Institutional web site	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:**

Only dedicated PG, PhD University for Ministry of Defence in the country, Chencellor Hon'ble RakshaMantri generous Grant – in Aid received.

Sprawling beautiful campus

Great infrastructure facilities.

Excellent student support with hostels, library, scholarships, health care etc

Transparent admission policy

Clearly defined Vision and Mission

Wide number of PG, and Ph.D programs in Engineering, Sciences, Management.

National Qualified competitive students and accomplished faculty members.

Good student-faculty ratio.

Scientists / Faculty Members are ranked as top 2% as the most influential researcher in their technical domain as per the recent Stanford University's Scopus Indexed data.

Updated curriculum and syllabi to meet the needs of Armed Forces, DRDO, Defence Quality Assurance, Defense Ordnance Factories, Directorate of Aeronautical Quality Assurance, and other Public Sector undertakings many specialized / customized PG courses are conducted

Higher standards of quality training in the critical area of modern Defence Technologies , thereby enhancing the technical capabilities of DRDO Scientists, Service Officers, Officers from Defence Industries and fresh engineering graduates

Effective Teaching-learning process with use of ICT.

e-governance and e-varsity

Semester scheme with continuous assessment.

Methodical and transparent evaluation process

Strong research culture with significant research output.

Community oriented extension activities.

Enviable placement record

Networking with DRDO, Atomic Research and CSIR, DBT.

Scholarships and choice based credit system in academics

Varieties of audit courses online across the departments.

Sports and cultural facilities

Guidance and counselling.

Personality and skill development programs

DIAT (DU) is a unique institute in several aspects. Some of the highlights of this University are as follows:

It is the only University in India whose mandate is to serve, tri-services, DRDO, PSUs, DPSUs and post graduate university which is fully funded by MOD, for conducting master's and PhD programmes.

All our PG programmes are designed to enhance the knowledge of MOD personnel in niche areas of Defence. The research in DIAT is always in line with the requirements of tri-services and DRDO, hence DIAT functions as the technology feeder to DRDO.

PG, MS by research, PhD in DIAT caters to all verticals of DRDO, namely, Armament & Combat, Aeronautics, Cyber Security, Lasers, Artificial Intelligence, Radars and Communication, Defence Science,

Robotics, Nanotechnology and Quantum Technology.

DIAT conducts various specialized training courses for armed forces, MOD personnel, DRDO scientists, BDL, BEL, BraMhos, NTRO and OFB on emerging topics related to Defence research requirements. DIAT has state-of-art research facility necessary for carrying out advanced Defence related research.

Since our faculty work in Defence related research, we extend our support for conducting technical staff courses for officers of triservices at MILIT

DIAT also collaborates with various international reputed foreign universities for collaborative research, joint training courses/publications.

It is a unique university which train officers of armed forces of friendly countries for M Tech and PhD programmes.

Based on the wide spectrum of research contributions, DIAT has obtained more than 50 provisional patents in a time span of just 10 years.

DIAT also has MOUs with private Defence organizations for their man power development.

DIAT always supports research focused on social aspects in terms of product developments, TOTs and consultancy.

Based on the previous observation from NAAC team, Curriculra aspects, teaching, learning and evaluation, open electives, research, consultancy and extension, infrastructure, learning resources, student support, progression, governance leadership and management, quality policy, innovations and practices are well addressed. Overall the recommendations for quality enhancement of the University as per the experts review are well addressed and reflected in our effective functioning of the University.

The selection of DIAT as an Institution of Eminence by UGC provides a unique opportunity to build our university into a top 100-ranked world-class academic and research institution, which unfolds significant opportunities to innovate in curriculum, teaching-learning process, research ecosystems and international presence, enabling us to be nimble in incorporating modern approaches to academics and research (e.g., micro and nano credits, interdisciplinary programs), without legacy issues.

DIAT's emphasis on value-based education, integrating spirituality and India-focused traditions with modern scientific concepts, providing an opportunity to establish substantial uniqueness from an international perspective

In India, education as a means to focus knowledge towards helping the poor is gaining momentum. DIAT's historical and long-standing connection with societal service better positions the university to have a unique advantage as a leader and mentor in this area of education.

DIAT provides unprecedented opportunities to apply the latest engineering and technological advancements towards healthcare, one of the grand challenges of the millennium.

DIAT has one of the best international reach among Indian institutions, facilitating opportunities for greater internationalization of the university in terms of student involvement and joint research initiatives.

As India establishes a robust economic growth and commitment to scientific progress, DIAT provides opportunities to attract talent back to India to help build our university to world-class standards.

DIAT to contribute immensely for self reliance in the field of Defence Technology as a part of Atmanirbhar Bharat.

File Description	Document
Appropriate web in the Institutional website	View Document

### 5. CONCLUSION

#### **Additional Information:**

Dr. DS Kothari nominated Dr. Patrick Blackett, (Nobel Laureate -Physics -1948), Military Expert, Royal British Navy, and he was invited by Prime Minister Shri. Jawahar Lal Nehru, to Indianize the military during 1950s. He, Dr. Patrick Blackett was awarded the Royal Medal by the Royal Society in 1940, the American Medal for Merit in 1946, and Head of the Physics Department of Imperial College London, was the one who was the Founder Director of IAS in1952, now known as Defence Institute of Advanced Technology (DIAT) Deemed to be University (DU). The IAS was started with the vision statement as

# "The Institute of Armament Studies (IAS) should train the Officers, Scientists and Engineers on Indian Defence related technologies"

The institute evolved as IAS, IAT, DIAT and DIAT (DU) in the years 1952, 1964, 2006, and 2011 respectively. DIAT is a premier Deemed to be University under the Department of Defence Research & Development, Ministry of Defence, Government of India. It is established with the vision of imparting Post Graduate Education in Engineering and Applied Sciences on thrust area relevant to Indian military, Defence industries, Ministry of Defence (MoD) R&D establishments, Technical Officers of the Ordnance Factory Board, Directorate of Quality Assurance, and General Public and friendly foreign countries, in addition to conducting various researches in the core areas of Defence Technologies. In addition to admitting MoD personals i.e., serving officers of the Indian Armed forces, DRDO scientists, Engineers of PSUs, Government Departments/Institutions, a number of seats in various disciplines are being offered every year to civilian candidates with scholarship, for M.Tech., MS (by Research) and Ph.D programme. DIAT is determined to evolve as an innovative teaching, training and research institute to develop indigenous contemporary Defence related technologies and function as cutting-edge technology feeder to the DRDO laboratories. The University also conducts various short-term courses, and stands proud with its motto: "Technology for the country, Security for Nation".

### **Concluding Remarks:**

DIAT (DU) is a unique institute in several aspects. Some of the highlights of this University are as follows:

- It is the only University in India whose mandate is to serve, tri-services, DRDO, PSUs, DPSUs and post graduate university which is fully funded by MOD, for conducting master's and PhD programmes.
- All our PG programmes are designed to enhance the knowledge of MOD personnel in niche areas of Defence. The research in DIAT is always in line with the requirements of tri-services and DRDO, hence DIAT functions as the technology feeder to DRDO.
- PG, MS by research, PhD in DIAT caters to all verticals of DRDO, namely, Armament & Combat, Aeronautics, Cyber Security, Lasers, Artificial Intelligence, Radars and Communication, Defence Science, Robotics, Nanotechnology and Quantum Technology.
- DIAT conducts various specialized training courses for armed forces, MOD personnel, DRDO scientists, BDL, BEL, BraMhos, NTRO and OFB on emerging topics related to Defence research requirements. DIAT has

state-of-art research facility necessary for carrying out advanced Defence related research.

- Since our faculty work in Defence related research, we extend our support for conducting technical staff courses for officers of triservices at MILIT
- DIAT also collaborates with various international reputed foreign universities for collaborative research, joint training courses/

publications.

- It is a unique university which train officers of armed forces of friendly countries for M Tech and PhD programmes.
- Based on the wide spectrum of research contributions, DIAT has obtained more than 50 provisional patents in a time span of just 10 years.
- DIAT also has MOUs with private Defence organizations for their man power development.
- DIAT always supports research focused on social aspects in terms of product developments, TOTs and consultancy.

Based on the previous observation from NAAC team, Curriculra aspects, teaching, learning and evaluation, open electives, research, consultancy and extension, infrastructure, learning resources, student support, progression, governance leadership and management, quality policy, innovations and practices are well addressed. Overall the recommendations for quality enhancement of the University as per the experts review are well addressed and reflected in our effective functioning of the University.

### 6.ANNEXURE

#### 1.Metrics Level Deviations

Metric ID Sub Questions and Answers before and after DVV Verification

1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

1.1.2.1. How many Programmes were revised out of total number of Programmes offered during the last five years

Answer before DVV Verification: 30 Answer after DVV Verification: 16

1.1.2.2. Number of all Programmes offered by the institution during the last five years.

Answer before DVV Verification: 67 Answer after DVV Verification: 67

Remark: DVV has made the changes as per 1.1

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

1.3.3.1. Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years.

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
716	590	778	1320	191

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
566	415	568	985	150

Remark: DVV has consider one student once in a year.

- 1.4.1 Structured feedback for design and review of syllabus semester-wise / year-wise is received from
  - 1) Students, 2) Teachers, 3) Employers,
  - 4) Alumni

Answer before DVV Verification: C. Any 2 of the above Answer After DVV Verification: B. Any 3 of the above

Remark: DVV has select B. Any 3 of the above as per shared feedback report by HEI.

1.4.2 Feedback processes of the institution may be classified as follows:

Answer before DVV Verification : A. Feedback collected, analysed and action taken and feedback available on website

Answer After DVV Verification: B. Feedback collected, analysed and action has been taken Remark: DVV has select B. Feedback collected, analysed and action has been taken as per 1.4.1

#### 2.1.1 **Demand Ratio (Average of last five years)**

#### 2.1.1.1. Number of seats available year wise during the last five years

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
448	398	398	374	350

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
448	398	423	399	350

Remark: DVV has made the changes as per shared seats available by HEI.

# Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the last five years

(Excluding Supernumerary Seats)

# 2.1.2.1. Number of actual students admitted from the reserved categories year wise during last five years

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
111	99	99	93	87

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
62	60	52	70	71

Remark: DVV has made the changes as per shared report of actual students admitted from the reserved categories by HEI.

### 2.6.3 Pass Percentage of students(Data for the latest completed academic year)

2.6.3.1. Total number of final year students who passed the examination conducted by Institution.

Answer before DVV Verification: 202 Answer after DVV Verification: 240

### 2.6.3.2. Total number of final year students who appeared for the examination conducted by the Institution.

Answer before DVV Verification: 202 Answer after DVV Verification: 240

Remark: DVV has made the changes as per shared report bY HEI. 3.1.5 Institution has the following facilities to support research 1. Central Instrumentation Centre 2. Animal House/Green House 3. Museum 4. Media laboratory/Studios 5. Business Lab 6. Research/Statistical Databases 7. Mootcourt 8. Theatre 9. Art Gallery 10. Any other facility to support research Answer before DVV Verification: B. 3 of the above Answer After DVV Verification: A. 4 or more of the above Remark: DVV has considered A. 4 or more of the above as per HEI clarification. 3.5.2 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs). 3.5.2.1. Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs). Answer before DVV Verification: 2020-21 2019-20 2018-19 2017-18 2016-17 3000051 5708165 6843206 7889066 5927912 Answer After DVV Verification: 2020-21 2018-19 2016-17 2019-20 2017-18 300.0 57.0 68.4 78.8 59.2 Remark: DVV has converted the value into lakhs only. 3.6.2 Number of awards received by the Institution, its teachers and students from Government Government recognised bodies in recognition of the extension activities carried out during the last five years 3.6.2.1. Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years. Answer before DVV Verification: 2019-20 2020-21 2018-19 2017-18 2016-17

8	3	5	7	3	
					4

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
4	3	1	4	1

Remark : DVV has considered awards for Extension activities i.e., NSS/NCC/Red Cross from Govt recognized bodies.

- Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years
  - 3.6.4.1. Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
918	65	220	1111	371

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
856	45	165	956	215

Remark: DVV has consider one student once in year.

- 4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year
  - $4.2.4.1. \ \textbf{Number of teachers and students using library per \ \textbf{day over last one year}$

Answer before DVV Verification: 35

Answer after DVV Verification: 25

Remark: DVV has made the changes as per average of teacher and students using library per day on (dates)

- 6.4.2 Funds / Grants received from government bodies during the last five years for development and maintenance of infrastructure (not covered under Criteria III and V) (INR in Lakhs).
  - 6.4.2.1. Total Funds / Grants received from government bodies for development and maintenance of infrastructure (not covered under Criteria III and V) year wise during the last five years (INR in Lakhs).

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
3330	3400	3200	4000	3800

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
33.30	34.00	32.00	40.00	38.00

Remark: DVV has converted the value into lakhs only.

### 7.1.7 The Institution has disabled-friendly, barrier free environment

- 1. Built environment with ramps/lifts for easy access to classrooms.
- 2. Divyangjan friendly washrooms
- 3. Signage including tactile path, lights, display boards and signposts
- 4. Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment
- 5. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading

Answer before DVV Verification: A. Any 4 or all of the above

Answer After DVV Verification: E. None of the above

Remark: DVV has select E. None of the above as per shared link has not opened.

#### 2.Extended Profile Deviations

1.1	Number of students year-wise during last five years
ID	Extended Questions

#### Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
215	230	262	270	224

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
430	460	524	540	448

#### 1.2 Number of outgoing / final year students year-wise during last five years

#### Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
202	240	250	240	114

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
240	203	240	256	116

# 2.1 Number of eligible applications received for admissions to all the programs year-wise during last five years

#### Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
1851	1868	1702	2195	2942

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
1851	1868	1712	2205	2942

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

### Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
112	99	93	87	87

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
111	99	99	93	87