Yearly Status Report - 2016-2017

Part A	
Data of the Institution	
1. Name of the Institution	**DEFENCE INSTITUTE OF ADVANCED TECHNOLOGY(DEEMED TO BE UNIVERSITY U/S 3 OF THE UGC ACT 1956)**
Name of the head of the Institution	**Dr. Surendra Pal**
Designation	**Vice Chancellor**
Does the Institution function from own campus	**Yes**
Phone no/Alternate Phone no.	**02024304001**
Mobile no.	**8275065951**
Registered Email	**vc@diat.ac.in**
Alternate Email	**iqac@diat.ac.in**
Address	**DIAT, Girinagar**
City/Town	**PUNE**
State/UT	**Maharashtra**
Pincode	**411025**

2. Institutional Status

University	**Deemed**
Type of Institution	**Co-education**
Location	**Rural**
Financial Status	**central**
Name of the IQAC co-ordinator/Director	**Dr. A. C. Abhyankar**
Phone no/Alternate Phone no.	**02024304311**
Mobile no.	**8806289111**
Registered Email	**iqac@diat.ac.in**
Alternate Email	**ashutoshabhyankar@gmail.com**

3. Website Address

Web-link of the AQAR: (Previous Academic Year)	https://www.diat.ac.in/about-iqac/

4. Whether Academic Calendar prepared during the year

4. Whether Academic Calendar prepared during the year	**Yes**
if yes,whether it is uploaded in the institutional website: Weblink :	https://www.diat.ac.in/query-from-naac/#

5. Accrediation Details

Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	**B**	**2.86**	**2015**	**26-Jun-2015**	**25-Jun-2020**

6. Date of Establishment of IQAC

6. Date of Establishment of IQAC	**01-Jan-2014**

7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Preparation for NBA	**01-Jan-2015** **365**	**150**

NBA	05-Feb-2016 2	150
Preparation for Participation in NIRF	01-Nov-2015 90	250
NIRF 2016 Ranking	01-Jan-2016 365	250
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8. Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Nil	Nil	Nil	2016 0	0
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9. Whether composition of IQAC as per latest NAAC guidelines:	**Yes**
Upload latest notification of formation of IQAC	[View File](#)
10. Number of IQAC meetings held during the year :	**2**
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	**Yes**
Upload the minutes of meeting and action taken report	[View File](#)
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	**No**

12. Significant contributions made by IQAC during the current year(maximum five bullets)

- **Five M Tech Programs accredited and planning for another three M Tech Programs.**
- **NIRF ranking** • **Syllabus revision / upgradation** • **Expansion of more M Tech specializations** • **Facilitate student to visit DRDO labs and Industry to carryout M Tech projects** • **Enhanced use of ICT in teaching and learning process**

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13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year

Plan of Action	Achivements/Outcomes
Smart class room	Made in all departments
Syllabus revision / up-gradation	Achieved
Inclusion of specializations	Achieved
Research Facilities	Achieved
Industry-Academic Interaction /Collaborations	Achieved
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14. Whether AQAR was placed before statutory body ?	Yes

Name of Statutory Body	Meeting Date
Board of Management	01-Jul-2016

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	No
16. Whether institutional data submitted to AISHE:	Yes
Year of Submission	2016
Date of Submission	08-Feb-2016
17. Does the Institution have Management Information System ?	Yes
If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)	Database used in Finance, Academic section, Library, and Material Management Group (MMG): Academic Section: Academic section maintains a complete database of the number of applications received to admission to the M Tech, MS by Research, Ph.D. programs. Apply to the statutory body for its approval and extension. Finance Section: Defence Institute of Advanced Technology, being Unitary University, Financial records are fully computerized. Accounts have been maintained in a universally accepted accounting system in India, i.e., Mercantile System, and it is being kept in Tally. Tally latest version is being used to manage financial data. Purchase and procurement: are processed through MMG for the entire Institute. MMG

maintains Inventory items, store items, and other asset details in the database and uses Tally to handle the billing. Library and Information Centre: LIC is fully automated with LIBSYS integrated, multiuser, and webcentric library management software. The Library maintenances the Bibliographic database of Books, Journals, Thesis, Dissertation, and other resources. The software facilitates the library in providing quick efficient services. 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 (DU) campus.

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Design and Development

1.1.1 – Programmes for which syllabus revision was carried out during the Academic year

Name of Programme	Programme Code	Programme Specialization	Date of Revision
Mtech	GM	M.Tech in Aerospace Engineering (Guided Missiles)	01/11/2016
Mtech	AA	M.Tech in Aerospace Engineering (Air Armaments)	01/11/2016
Mtech	UAV	M.Tech in Aerospace Engineering (UAVs)	01/11/2016
Mtech	ACV	M.Tech in Mechanical Engineering (Armament and Combat Vehicles)	01/11/2016
Mtech	MRN	M.Tech in Mechanical Engineering (Marine)	01/11/2016
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1.1.2 – Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic

year

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
Mtech	M.Tech in Robotics	01/07/2016	RO	01/07/2016
Mtech	M.Tech in Sensors Technology	03/10/2016	ST	03/10/2016
Mtech	M.Tech in Laser & Electro- Optics	03/10/2016	LEOC	03/10/2016
Mtech	M.Tech in Electronics Engineering (Radar and Communications)	02/05/2016	RC	02/05/2016
Mtech	M.Tech in Electronics Engineering (Defence Electronic Systems)	16/05/2016	DES	02/05/2016
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1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction
Mtech	M.Tech. Aerospace Engineering (UAVs) UAV Design UAV Guidance & Control	04/07/2016
Mtech	M.Tech in Materials Engineering (Sponsored) Robot sensors and instrumentations	04/07/2016
Mtech	M.Tech in Signal Processing and Communications Introduction to Mobile Robotics [ME 653]	04/07/2016
Mtech	M.Tech in Software Engineering and Intelligent Systems Field and service robots	04/07/2016
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1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the University level during the Academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
Mtech	All MTech and MS (By Res)	04/07/2016

1.3 – Curriculum Enrichment

1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Fundamental of imaging Science and Technology	01/07/2016	15
Data acquisition and Lab view Programming	01/07/2016	20
Graphics and Visualization	01/07/2016	26
International Robotics workshop and championship Robotryst	22/02/2016	15
Workshop on MSC Adams sponsored by CSM	25/08/2016	50
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1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
Mtech	Design and computational studies of energetic plasticizers	1
Mtech	Templated sysnthesis of none metal oxides (TiO2, ZnO) characterization and their application as photocatalysts	1
Mtech	Degradation of organic dyes by use of quantum dots (QDs	1
Mtech	Selective removal of nitrophenols from wastewater using supported ionic liquid membrane	1
Mtech	suppression of hydrogen flammability using vaious compounds	1
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1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	No
Parents	Yes

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

Feedback Obtained
Feedback on the teaching-learning process is received from students as a Students satisfaction survey based on a structured questionnaire framed and approved by the Competent Authority of the University. The questionnaire can be downloaded (distribute) from (to) the web link, and Students can drop the filled in feedback form, where the feedback forms are collected in the Academic Section. The received feedback is then be analyzed by the Academic Section, and it will be forwarded to the respective departments, and it is also forwarded to the Head of the institution with necessary suggestions based on this feedback. Teachers provide informal as well as formal input to the Head of the institution on different academic, administrative, and other affairs related to the University. Departments receive feedback from parents through parent-teacher meetings if required and discuss various issues related to the overall development. Based on the input, necessary improvement/modification on teaching-learning evaluation and curriculum are proposed in BOS. Also, feedback from alumni and others (DRDO) is utilized to modify the curriculum based on Board of Studies (BOS) recommendations. Administration takes feedback every semester from the students before the examinations. Students Feedbacks (SF) is evaluated at the faculty meeting, and corrective actions are then made. Each student is encouraged to become alumni of the institute. The parents feedback is often asked when a student is found to be not performing up to the mark. Faculty feedbacks are usually taken during APAR and CAS promotions.

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
Mtech	All programs available in DIAT	350	2942	244
PhD or DPhil	All programs available in DIAT	28	159	22
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2.2 – Catering to Student Diversity

2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2016	0	224	0	45	45

2.3 – Teaching - Learning Process

2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using	ICT Tools and resources	Number of ICT enabled	Numberof smart classrooms	E-resources and techniques used

	ICT (LMS, e-Resources)	available	Classrooms		
45	45	1	9	9	1
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2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

All faculties are deeply involved in mentoring the students and preparing them for their project presentation as well as for their interview at different places with Govt and private sectors. DIAT organizes sports festivals each year, where the students get maximum exposure and interaction opportunities to develop their personality. Similarly, the cultural festival is held each year, and students, along with faculty mentors, participate and showcase their talent. Department wise students are identified for preparing them to face a challenging interview process through training and placement cell. Students are involved in social services activities through student clubs. Distinguished lecture series is a prominent activity that DIAT faculty organizes where prominent speakers are invited from within the city as well as from out of the town catering to industry and academia. Respective programme coordinators mentor all M. Tech and Ph.D. programmes throughout their stay at DIAT. Approximately equal numbers of students are assigned to all faculties in each department for carrying out their projects. Faculties act as local guardians and mentors throughout students academic tenure. Students academic involvement, grievances, personal-professional issues are taken care of by a mentor. Each mentor does student counseling at regular intervals.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
224	45	1:5

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
70	45	25	4	41

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2017	Dr. Odelu Ojjela	Assistant Professor	National Science Day Award by DRDO.
2016	Dr. D. Pradhan	Assistant Professor	IETE MN Saha Memorial Award
2017	Dr. CRS Kumar	Associate Professor	Distinguished HOD award and Distinguished Associate Professor Award, TechNext India 2017, IIT Mumbai
2016	Dr Sunita Dhavale	Assistant Professor	IETE MN Saha Memorial Award 2016
2016	Dr. K.Krishna Naik	Assistant Professor	Teacher of The Year
2017	Dr. Balasubramanian K	Professor	7th National Award for Innovation in

Year	Name	Designation	Award
			Innovation in Polymer Processing Machinery and Equipment
2017	Dr. Balasubramanian K	Professor	25th Business school affair and Devang Mehta National Education award
2016	Dr. Sumati Sidharth	Assistant Professor	Best Research Paper Award, International Conference on Emerging trends in Management and Technology
2016	Dr. Sumati Sidharth	Assistant Professor	Best Research Paper Award, Society of Operations Management
2017	Dr. Ganapati N. Joshi	Assistant Professor	DRDO National Technology Day Oration Medal
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2.5 – Evaluation Process and Reforms

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
Mtech	M. Tech (2015-2017 batch)	III Sem Autumn 2016	06/12/2016	17/01/2017
Mtech	M. Tech (2016-2018 batch)	I Sem Autumn 2016	06/12/2016	17/01/2017
PhD or DPhil	Ph.D	Autumn 2016	06/12/2016	17/01/2017
Mtech	M. Tech (2015-2017 batch)	IV Sem Spring 2017	30/05/2017	12/06/2017
Mtech	Ph.D	Spring 2017	29/05/2017	20/07/2017
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2.5.2 – Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
0	2691	0

2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

https://www.diat.ac.in/query-from-naac/

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
ACV	Mtech	Mechanical Engineering (Armament and Combat Vehicles)	9	9	100
MRN	Mtech	Mechanical Engineering (Marine)	15	15	100
UAV	Mtech	Aerospace Engineering (UAVs)	12	10	83
AA	Mtech	Aerospace Engineering (Air Armament)	2	2	100
GM	Mtech	Aerospace Engineering (Guided Missiles)	21	21	100
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2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

https://www.diat.ac.in/query-from-naac/

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Promotion of Research and Facilities

3.1.1 – Teachers awarded National/International fellowship for advanced studies/ research during the year

Type	Name of the teacher awarded the fellowship	Name of the award	Date of award	Awarding agency
National	Dr. Balasubramanian K	Dewang Mehta Award for Best Researcher Innovator	01/07/2016	Dewang Mehta National Education Awards
National	Dr Priyesh More	DST Inspire Faculty Award	01/07/2016	DST, Govt of India
National	Dr AVR Murthy	DST Inspire Faculty Award	01/07/2016	DST, Govt of India
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3.1.2 – Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other fellows in the Institution enrolled during the year

Name of Research fellowship	Duration of the fellowship	Funding Agency
JRF – 2 nos. Theoretical and Experimental Investigations of induced magnetism in GNR upon conjugation	1236	DST
RA – 01 no.	739	ARMREB
JRF – 01 no.	374	DRDO ARDB
JRF – Spatial Distribution of uranium and associated water quality parameters in three districts of Maharashtra	729	BRNS
JRF – Spatial Distribution of uranium and associated water quality parameters in three districts of Maharashtra	729	BRNS
RA – 1 no. Non Newtonian Nano fluid model for blood flow through Asymmetric tapered stenotic dynamic artery in the presense of catheter	364	DIAT-NNFM
RA – 01 no. DRDO-DIAT Nano Project	349	DRDO-DIAT Nano Project
JRF – DRDO-DIAT Nano Project	364	DRDO-DIAT Nano Project
JRF – DRDO-DIAT Nano Project	234	DRDO-DIAT Nano Project
JRF – DRDO-DIAT Nano Project	695	DRDO-DIAT Nano Project
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3.2 – Resource Mobilization for Research

3.2.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Major Projects	729	ARMREB/ADMB	2320700	1390350
Major Projects	729	BRNS	2694300	1825950
Major Projects	1279	BRNS	2880736	1159386
Major Projects	729	DAE – BRNS	1889300	1073450
Major Projects	942	R DE (E)	1286400	811400
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3.3 – Innovation Ecosystem

3.3.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
Innovation – Improving Lives	IP Cell	26/04/2017

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3.3.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
Best Higher Education Institute on Maharashtra/ Innovative Category	DIAT	CMAI Association of India	04/11/2016	Innovation
Microwave Pioneer Award	Dr. Surendra Pal	Int Symp on Microwaves	20/12/2016	RF and Space Commn
Best Teacher	Dr. A. Bazil Raj	DIAT	01/01/2017	Excellence in teaching
7th National Award for Technology Innovation	Prof Balasubramanian	Ministry of Petroleum	09/02/2017	Innovation in Polymeric Material
Presentation and paper award	Sq.Ldr.Praveen Kumar	2nd IEEE Int Conf on Engg and Tech, TN	03/05/2017	Best Paper Award

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3.3.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
1	DIAT Incubation Center	DIAT	NIL	NIL	01/01/2016

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3.4 – Research Publications and Awards

3.4.1 – Ph. Ds awarded during the year

Name of the Department	Number of PhD's Awarded
Aerospace Engg.	0
Computer Science Engg.	1
Mechanical Engg.	2
Applied Mathematics	2
Applied Chemistry	2
Applied Physics	6
Electronics Engg	4

Materials Engg		3

3.4.2 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
National	Aerospace Engg	6	0
International	Aerospace Engg	1	1.5
National	Mechanical Engg	2	1.5
International	Mechanical Engg	18	2.0
National	Electronics Engg	0	0
International	Electronics Engg	19	2.0
National	Computer Sc and Engg	2	0
International	Computer Sc and Engg	14	1.03
National	Materials Engineering	0	0
International	Materials Engineering	41	3
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3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
Technology Management	0
Applied Mathematics	3
Applied Physics	2
Applied Chemistry	0
Materials Engineering	1
Computer Sc and Engg	23
Electronics Engg	3
Mechanical Engg	9
Aerospace Engg	9
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3.4.4 – Patents published/awarded/applied during the year

Patent Details	Patent status	Patent Number	Date of Award
Bearing Fault Detector (Inventors- S K Panigrahi and Sunil Tyagi)	Published	201621003344	27/05/2016
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3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the	Name of	Title of journal	Year of	Citation Index	Institutional	Number of

Paper	Author		publication		affiliation as mentioned in the publication	citations excluding self citation
Birefringence manipulation in tapered polarization-maintaining photonic crystal fiber Mach-Zehnder interferometer for refractive index sensing	D. Pawar, S.N. Kale	Sensors and Actuators A: Physical	2016	0	DIAT	0
Hazardous materials sensing: An electrical metamaterial approach	Rawat, V.a Kitture R.aKumari, D.Rajesh, H.Banerjee, S.Kale, S.N	Journal of Magnetism and Magnetic Materials	2016	0	DIAT	0
Facile synthesis of novel hydrophilic and carboxyl-amine functionalized superparamagnetic iron oxide nanoparticles for biomedical applications	Ganeshlenin Kandasamy, SreerajSurendran, Anindita Chakrabarty, S. N. Kale and Dipak Maity	RSC Adv.	2017	2	DIAT	1
Au sensitized ZnO nanorods for enhanced liquefied petroleum gas sensing properties	UT Nakate, RN Bulakhe, CD Lokhande, SN Kale	Applied Surface Science	2016	2	DIAT	2
Sprayed zinc oxide	UT Nakate, P Patil,	Journal of Colloid	2016	0	DIAT	0

films: Ultra-Violet light-induced reversible surface wettability and platinum-sensitization-assisted improved LPG response	RN Bulakhe, CD Lokhande, SN Kale, M Naushad	Interface Science				
Nano-carbon: preparation, assessment, and applications for NH3 gas sensor and electromagnetic interference shielding	AD Ugale, RV Jagtap, D Pawar, S Datar, SN Kale, PS Alegaonkar	RSC advances	2016	3	DIAT	2
Mach-Zehnder interferometric photonic crystal fiber for low acoustic frequency detections,	D Pawar, CN Rao, RK Choubey, SN Kale	Applied Physics Letters	2016	0	DIAT	0
Fabrication: Mechanical, electrical and enhanced EMI properties	B.V. Bhaskara Rao,Basavaraj S Kothavale, S. N. Kale	AIP Advances	2016	0	DIAT	0
Effect of annealing treatment and deposition temperature on CdS thin films for CIGS	Ravi Kant Choubey, Dipti Desai, S. N. Kale, Sunil Kumar	J Mater Sci: Mater Electron	2016	0	DIAT	0

solar cells appl.						
Highly Sensitive Electrical Metamaterial Sensor for Fuel Adulteration Detection	V Rawat, V Nadkarni, SN Kale	Defence Science Journal	2016	0	DIAT	0

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3.4.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
All publications of DIAT	Nil	Nil	2016	24	332	DIAT

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3.4.7 – Faculty participation in Seminars/Conferences and Symposia during the year

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	10	60	0	0
Presented papers	6	44	0	0
Resource persons	4	16	0	0

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3.5 – Consultancy

3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultan(s) department	Name of consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
Dr Upasna Singh	Recovery of Hard Disk	Hindustan Construction Corp ltd	0

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3.5.2 – Revenue generated from Corporate Training by the institution during the year

Name of the Consultan(s) department	Title of the programme	Agency seeking / training	Revenue generated (amount in rupees)	Number of trainees
Dr.P.K.Khanna, Applied Chemistry	Customized Course for Indian Ordnance Factory Officers	National Academy of Defence Production, Nagpur	1264280	60

Dr.Ajay Mishra Aerospace Engg.	Customized Course on Missile Orientation Programme	Brahmos Aerospace Pvt.Ltd.	1684727	17
Dr.P.K.Khanna, Applied Chemistry	Customized Course for Indian Ordnance Factory Officers	National Academy of Defence Production, Nagpur	2978905	45

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3.6 – Extension Activities

3.6.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Plantation of Saplings Programme	DIAT (DU) NSS Centre	5	130

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3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
Nil	Nil	Nil	0

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3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activites	Number of students participated in such activites
Blood Donation	DIAT (DU)	Blood Donation Camp	5	121
Swachhta Pakhwada	DIAT (DU)	Clean Campus day	25	120

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3.7 – Collaborations

3.7.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
Production of White Light Emitting Magic Sized Clusters based on doped and undoped II-VI Semiconductors for potential LED application.	Prof PK Khanna and Dr. P. More	SPARC MHRD	730

Computational analysis of two-Dimensional blood flows through asymmetric atheterized stenotic tapered artery.	Dr.D Srikanth, DIAT(DU) Prof. D Srinivas Acharya, NITW	CSIR	1095
Analysis and Design of 3D Printed Automobile Leaf Spring	Dr Balasubramanian Kandasubramanian	DIAT	730
Development of SOx/NOx-derivatives gas sensors using n anomaterial-functionalized ring resonators.	Prof. Sangeeta Kale	DAE-BRNS	1095
Theoretical and Experimental investigations of induced magnetism in Graphene Nanoribbons (GNRs) upon conjugation	Dr Suwarna Datar	DST Nanomission	1095
Augmented Reality based Maintenance Trainer for Tejas Fighter Jet	Dr CRS Kumar	ERIPR DRDO	730
Leveraging Deep Learning Models for Human Activity Recognition	Dr. UPASNA SINGH	Nil	730
Design of Wideband HF Antennas	Prof K P Ray	LRDE	540
Photonics Radar	Prof K P Ray	SERB	1095
FMCW Radar	Dr. A Bazil Raj	DIAT	730
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3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Projects	Thesis	ARDE, C-DAC, RD (Deghi) , HEMRL, NMRL, DMSRD, VRD, Bharat Forge, LT	01/07/2016	30/06/2017	20

		Defence, BDL etc				

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3.7.3 – MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
Cranfield University	15/05/2017	Combat Vehicle Engineering, System Engineering	0
SUCOSO Service Pvt. Ltd., Pune, Maharashtra	18/04/2017	a) Techno-managerial manpower and training needs b) Project consultancy and Incubation	0
National Institute of Electronics and Information Technology (NIELIT), Calicut, Kerala	21/04/2017	Jointly offer M.Tech Programme in Electronics Engineering Exchange of academic Information, scholarly information, material facilities and also joint publications Exchange trainees / students, faculty.	15
Defence Research and Development Laboratory (DRDL), Hyderabad, Telangana	09/05/2017	Joint Certificate self study courses for DRDL Scientists. To undertake joint research in relevant areas of technology. To undertake research on problems of bilateral interest at DIAT possibly by offering some of them as Ms/PhD problems to DRDL scien	2

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CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development

1300	1088

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing
Class rooms	Existing
Laboratories	Newly Added
Seminar Halls	Existing
Seminar halls with ICT facilities	Existing
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added
Others	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
No file uploaded.	

4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation
LibSys	Fully	7	2010

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	13261	6581853	1167	1046330	14428	7628183
Reference Books	42509	85601741	773	1681431	43282	87283172
e-Books	0	0	0	0	0	0
Journals	0	0	105	298510	105	298510
e-Journals	0	0	1870	20339881	1870	20339881
Digital Database	0	0	8	4576616	8	4576616
CD & Video	1528	0	95	0	1623	0
Library Automation	1	494675	912746500	1	912746501	494676
Weeding (hard & soft)	4805	0	0	0	4805	0
Others(specify)	1825	0	95	0	1920	0
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 4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
Nil	Nil	Nil	01/01/2016

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4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/GBPS)	Others
Existing	37	1	2	1	1	1	0	100	8
Added	0	0	0	0	0	0	0	0	0
Total	37	1	2	1	1	1	0	100	8

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

100 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
MITHI Software	https://www.diat.ac.in
Wildcard SSL Certificate	https://www.diat.ac.in
Cyberoam UTM.	https://www.diat.ac.in
Balasai	https://www.diat.ac.in
ERNET	https://www.diat.ac.in
Registration for Academic institutions	https://www.diat.ac.in
MATLAB	https://www.diat.ac.in
LIBSYS	https://www.diat.ac.in
Windows Server 2008	https://www.diat.ac.in
CLRSTREAM Security service	https://www.diat.ac.in

4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurredon maintenance of physical facilites
50000000	34500000	65000000	65000000

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

? All proposals for the construction of new academic buildings, library, classroom, and electrical appliances are submitted to DRDO headquarter with SOC and proper justification and supporting documents. DRDO HQ constitutes the Board of Officers (BOO) is formed, and on the recommendation of the BOO, the competent authority may consider the proposal for sanction. The sanctioned

works are either executed either by CCE(W), Pune or MES, Girinagar, Pune. ?
Maintenance and repairing of academic buildings, library, classrooms,
electrical appliances, and other physical infrastructure of DIAT are done by
the Military Engineering Service (MES), Girinagar Pune. The Estate Works
Officer on behalf of Vice-Chancellor intimates the construction, maintenance,
and repairing related requirements, as and when required, to the MES. ? The
DIAT receives grants-in-aid from the Department of Defence R D, Ministry of
Defence, Government of India for procurement of different items which include
salary, types of equipment, chemicals and glassware, sports items, books
journals, equipment, and contingency. ? While purchasing equipment from any
fund, it is generally ensured that the installation charges and maintenance
charges (within the warranty period) are provided by the company, which
delivers the equipment. Such a clause is inserted in the work order of the
material.

https://www.diat.ac.in

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	Ph.D Institutional Scholarship M.Tech	145	37400
Financial Support from Other Sources			
a) National	Nil	0	0
b)International	Nil	0	0
View File			

5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implemetation	Number of students enrolled	Agencies involved
Remedial coaching	01/01/2016	300	DRDO, GoI, India
Yoga and Meditation classes	01/01/2016	320	DIAT, GoI, India
Mentoring	01/01/2016	320	DRDO, GoI, India
Personal Counselling and Mentoring	01/01/2016	119	DIAT
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5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passedin the comp. exam	Number of studentsp placed
2016	NIL	0	0	0	0
View File					

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
0	0	0

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Nameof organizations visited	Number of students participated	Number of stduents placed	Nameof organizations visited	Number of students participated	Number of stduents placed
Bharat Forge Accord Software Systems Pvt. Ltd. Canopus Infosystems Pvt. Ltd.	18	5	ISRO UP Government College MMUP Gorakhpur LASTEC	11	3

View File

5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to
2016	1	Materials Science and Technology	Metallurgical and Materials Engg	IIT Bombay	PhD
2016	1	Computer Science	CSE	DIAT	PhD
2016	1	Sensor Technology	Applied Physics	SPPU	PhD
2016	1	CST	Applied Chemistry	IIT BOMBAY	PhD
2016	1	PhD	Applied Physics	IIT Mandi	Post Doc

View File

5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
GATE	320
Civil Services	150

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5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Football	District Level	20

Badminton	District Level	10
The University is active in various levels of intra and inter university cultural activities.	Both hostel and Day scholars	150

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5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2016	Nil	National	0	0	0	Nil

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5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

The function of the Students Council: Students council provides an opportunity for students to develop their leadership skills through active participation in college administration and student collaboration. The student council is expected to perform the following functions: • Organizing cultural activities and sports activities for students. • Communicating problems faced by students to HODs and management of the university. • Maintaining discipline in the university campus. • Maintaining a university campus clean and green. • Participation in extension activities like voting awareness programme, Swachh Bharat Abhiyan, Tree plantation, Yoga day, Blood donation camp, etc. • They give their suggestions for the purchase of books, magazines for the library. The following committees have student representatives: • Students Council • Anti-Ragging Committee • Sports Committee • NSS Committee • Alumni Association • Anti-Sexual Harassment Cell • Annual Magazine Committee Students in Administration: • Our primary focus is advising students about organizational matters regarding their studies, representation of student interests in commissions and conferences, and events. • As we are participants of many commissions, we represent student interest, for instance, whenever a new curriculum is created. Additionally, we serve the student body at the Study Conference and the Faculty Conference. When there is a call for a new professorship, we members of the student representatives are dispatched to participate in the appointments committee. • Apart from that, we are continually planning events such as the welcome-week for first-year students, panel discussions, seminars, parties, etc. • We additionally provide learning materials. If you have any content (transcripts, etc.) to share with your colleagues, we can accept it during our office hours. Students are engaged in Many Ways: • As course representatives and representatives on department, division and University committees, or by interacting with their student representatives • By providing individual and collective feedback on their learning and more comprehensive student experience through surveys and other means (including consultation exercises) • Through engagement in crucial quality assurance and enhancement processes, including reviews and course approval. The institute ensures 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 broader experience through their representatives • Student representatives and staff working with them are aware of their responsibilities • Student representatives are supported and trained in their

roles • 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 broader experience at relevant points in their course of study Feedback is analyzed 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 essential quality assurance and enhancement processes.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

Defence Institute of Advanced Technology (DU) Alumni Association (DIATAA) has been 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 engages in such academic and social activities to promote 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 on 31st March 2017 is 360 and the contribution is Rs.3, 49, 500.00.

5.4.2 – No. of registered Alumni:

115

5.4.3 – Alumni contribution during the year (in Rupees) :

115000

5.4.4 – Meetings/activities organized by Alumni Association :

1

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

Decentralization: The institution has a mechanism of providing operational autonomy to various functionaries to ensure a decentralized governance system • Faculty members are given representation in various committees/cells nominated by the Vice-Chancellor, in the Governing body, in the IQAC and other committees. • Various institute level committees have been entrusted with looking after subject-specific works/matters and making suitable recommendations for consideration by the competent authority. • Various statutory committees have been constituted • Dean Academics is approving authority for utilization of contingency grant and passing of the TDs of faculties • HoDs are empowered to sanction Rs. 15,000/- cash purchase of the items • HoDs are allowed to approve the leave of their staff working under them in-service departments subordinate officers have been authorized to dispose of many routine cases • Non-teaching staff is represented in various committees and the IQAC. Suggestions for non-teaching staff are considered while framing policies or making important decisions. Participative Management: The institution promotes the culture of participative in management decessions. viz., strategic level, functional level, and operational level. Strategic Level: The Institute authorities (viz BOM, AC, FC P MB), and the Vice-

Chancellor is involved in defining policies procedures, framing guidelines and rules regulations about admission, examination, discipline, grievance, support services, finance, etc. Suggestions are invited for various agenda items to be considered by the authorities of the institute. Functional Level: Faculty members share knowledge among themselves, students, and staff members while working for a committee. The Vice-Chancellor interacts with DRDO, Service Hqs and other government and external agencies. Operational Level: The Vice-Chancellor has constituted a core committee of all Deans, Registrar, and FO to consider all critical issues of the institute Faculty members involved in joint Research and have published papers. Students and office staff join hands with the Vice-Chancellor and faculty to execute different academic, administrative, extension related, co-and extracurricular activities. Higher responsibilities to Assistant Professor – Assistant Professor have been works in-charges of various committees of university level and in charge responsible for MoUs with various outside agencies. The Assistant Professor as HoDs – to encourage Asst Professor involvements in higher management and decision making, a few Asst Professors have been made HoDs.

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Curriculum Development	DIAT regularly undertakes to develop and upgrade the course curriculum to fulfil the needs of the all stakeholders as well as deference industry at large by conducting BOS at regular intervals involving experts from DRDO, Tri Services, Academics, and Industies. As per the demand Institute also introduces new and unique program to meet the requirements of the DRDO as well as Defence Industries of the country. The proposed syllabus by the dept. is vetted through Post graduate Committee (PGC) of DIAT before getting formal approval from Academic council (AC) of DIAT. Rules and regulations are updated as per the UGC norms as and when required.
Teaching and Learning	Teaching learning process has an extensive use of demonstration / practical session along with regular class room teaching as a part of the curriculum. Use of ICT for effective teaching with Learning Management Systems (LMS) and E-learning resources etc. All students are asked to give presentations on state – of the Art technologies as a part of course outcome. All M Tech programs are enriched by involving experts from various sectors such as Academia, Industries,and RD establishments.

Examination and Evaluation	The role of Controller of Examinations is to conduct fair and timely examinations (as per the academic calendar of the University) for the M.Tech / MS (by research) / PhD students registered with University. Implemented standard code of conduct of examination procedure to process the M.Tech thesis evaluation, processing of PhD thesis for evaluation and viva-voce, compilation of Marks, timely declaration of results and issue of marks statements, Presenting the results analysis report before Academic Council for its approval for award of degree to the qualified M.Tech/ MS (by research) / PhD candidates during convocation every year. Amended the guidelines for examination and evaluation, amendment of the guidelines from time to time, ensuring strict adherence of guidelines by faculty. Examination reforms implemented by the institution, in terms of quality of testing instruments, conduct of examination, evaluation procedures and announcement of results. • Single mid semester exam is replaced by three assessment tests spread throughout the semester to achieve continuous evaluation. • Marks/Percentage based system is replaced by Grade based evaluation. • Results are awarded in form of SGPA/CGPA. • Policy and implementation of providing Grace marks. • Provision of Retotalling is made.
Research and Development	DIAT encourages young faculty members to undertake research projects and also funds them. Also allows participating in collaborative research projects with DRDO scientist. The faculty is encouraged to seek research fundings from the govt and private agencvies. 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.
Library, ICT and Physical Infrastructure / Instrumentation	Equipments Induction Programme was implemented this year onwards – 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. The library serves as a creative and innovative partner in supporting the teaching, learning research activities of the Institute and it is committed to providing the best possible information services to fulfill the information needs of its academic community. DIAT library has created an excellent infrastructural facility with all the latest tools and technologies. The library provides a conducive environment for users with adequate natural lighting and air-conditioned reading zones. The endeavour is to create an inspiring learning environment. The library has a good collection development policy, and Institute provides adequate funds for procurement print as well as electronics- purchase of books, subscription of journals, and other learning resources. All electronic resources - full-text electronic journals, online databases, electronic books, and other electronic scholarly resources are accessible from any networked computer/laptop within the Institute campus. Initiated development of Institutional repository of DIAT with faculty publications, dissertation and thesis, and other institutional documents. Institute provides high-speed internet facilities with authenticated and secured Wi-Fi facilities with a good number of high-speed computers to and faculty, research scholar and M Tech students.
Human Resource Management	Many departments conducted CEP /Workshop /Training programs for faculty members to update their knowledge as well as to handle high end instruments /equipments. Faculty were also encouraged to attend professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, FDP to update their skills and subject knowledge conducted by other institutions. Teachers provided with financial support to attend conferences / workshops and also decided to reimbrasesed towards membership fee of professional bodies. Non – teaching staffs were also encourages attending training programs to update their knowledge and skill level.

Industry Interaction / Collaboration	DIAT signed MoUs with industries to undertake academic and research collaboration in the areas of mutual interest, Joint RD in applied futuristic areas of Science and Technology, Joint RD for development of products/process, exchange of academic information, scholarly information, materials, publications Research Projects. Also to conduct FDP/SDP/Seminars/ Workshops/ Conference/ Guest Lectures on latest technologies.
Admission of Students	Online applications were received from GATE qualified candidate for admission to different M Tech programs.

6.2.2 – Implementation of e-governance in areas of operations:

E-governace area	Details
Finance and Accounts	• Defence Institute of Advanced Technology being single Unit University, Financial records are fully computerized. Accounts have been maintained in a universally accepted accounting system in India, i.e., Mercantile System, and it is being kept in Tally.ERP 9 Accounting Software. Tally ERPs latest version is being used to maintain financial data. • The finance section has adopted the e-payment system for all types payments of the institutes. E-payment system is based on the three-tier authorization basis to bring accuracy. To bring transparency, minimal cash transactions are carried out only in case of an emergency. • Application fees and Semester fees are being collected online using the platform provided by the State Bank of India. The hassle-free fee collection system is in place.
Planning and Development	• 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. • POINTS – 20 programme was conducted in a restructured manner, many customized programmes were conducted for BDL, BEL, HAL, BRAHMOS and IOFs. DIAT has an active Placement Cell has attracted several top notch industries such as TCS, WIPRO, Bharat Forge, Premier Explosives, BrahMos, HAL, NAL etc. • Few administrative changes were

	implemented.
Student Admission and Support	The website of DIAT was made more student, faculty, and visitor-friendly to implement the e-governance. These include the Grievance handling mechanism, materials management group interaction with vendors, faculty academic profile projection, admission forms, and other official communications, including admissions, applications, advertisements, resulting in declarations, and so on.
Administration	ICT and Physical Infrastructure / Instrumentation: The Library is committed to providing the best possible Library and information services to fulfill the information needs of its academic community faculty members, scientists, research scholars, students, and staff members. The Library has created an excellent infrastructural facility with all the latest tools and technologies. Implemented RFID technology integrated with LIBSYS- library management system software that facilitates the Library in providing quick efficient services. Adequate funds for proper collection development (print as well as electronics) – purchase of books, subscription of journals, and other learning resources. Provision of accessing all electronic resources - full-text electronic journals, online databases, electronic books, and other electronic scholarly resources are from any networked computer/laptop within the Institute campus. The Library has a good number of computers with high-speed internet facility and also provides authenticated and secured Wi-Fi facility to its user community for accessing electronic resources. Conduct regularly outreach activities, including information literacy program, Authors workshops, Training program, book exhibition, etc. To fulfill the information needs of the user community, the Library is extending Resource sharing / Inter-library loan facility with all DRDO TICs, and also with academic and research organization viz local UoP, NCL, IISER, IITs, etc.

6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2016	Dr. Upasna Singh	Two days workship on "Sixth Sense Robotics", DIAT.	For attending the Conference	0
2016	Dr. D. Srikanth	ISTAM - 2016	For attending the Conference	10000
2016	Dr. OdeluOjjela	ISTAM - 2016	For attending the Conference	10000
2016	Dr. T. U. Patro	Fourth International Conference on Polymer Processing and Characterization (ICPPC – 2016) 9-11 December 2016 at Mahatma Gandhi University, Kottayam, Kerala, India	Electron Microscopy Society of India	20000
2017	Dr.Ashutosh Abhyankar	INDO-FRENCH WORKSHOP ON PRESSURE EFFECTS ON STRONGLY CORRELATED MATERIALS (IWPESCM'17)Bharathidasan University, Tiruchirappalli	IFCPAR/CEFIPRA, New Delhi and Bharathidasan University	1500
2017	Dr.Ashutosh Abhyankar	International Conference on Magnetic Materials (ICMAGMA-2017) at DMRL, Hyderabad	Organised by Magnetic Society of India, Hyderabad	10000
2016	Dr.Ashutosh Abhyankar	Quality Improvement Program (TEQIP-II)	AICTE/Technical Education	10000
2016	Dr. H.S. Panda	Short course on Flexible electronics by Radhamanohar Rao A.V.N PhD	IIT Kanpur	5000

		Student.		
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6.3.2 – Number of professional development / administrative training programmes organized by the University for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2016	Nil	Nil	01/01/2016	01/01/2016	0	0
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6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
CEP Course on 'Hyperspectral Remote Sensing for Terrain Applications' at DTRL Delhi	1	21/11/2016	25/11/2016	5
CEP Course on 'EW Antennas-ETC' at DRDL Hyderabad	1	07/08/2016	13/08/2016	7
Attend short course at WTC, Bangalore	1	03/02/2016	07/02/2016	5
CEP Course on 'Hypersectral Remote Sensing for Terrain Applications' at DTRL Delhi	1	20/11/2016	26/11/2016	7
FDP on 'Sensor Network and IOT' at Hyderabad	1	27/11/2016	03/12/2016	7
Short term training programme on 'Internet of things' at College of Engineering, Pune	1	15/02/2017	19/02/2017	5
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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
45	45	112	112

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
A. Government of India Welfare Schemes implemented by DIAT (DU) • Increment in Completion of Ph.D. • On Duty for attending Seminar / Conferences/ Workshops • Financial assistance for participation and presentation in the national/international Seminars, Conferences, and Workshop. • Financial support for participation and presence in international seminars, conferences, etc., once in three years. • Medical reimbursement facility • Health Center facility • Canteen • CSD facility • Government vehicle for private purpose on the standard rate • Allotment of Government residences B. Welfare Schemes implemented by DIAT (DU) • Provision of drinking water purifier • Celebration of Indian festival • Organizing cultural programmes • Establishment of employees cooperative society • Community Centre, Bank, Post Office, Grocery shop, Vegetable shops, Stationery shops, Refreshment Center, etc., in the campus	A. Government of India Welfare Schemes implemented by DIAT (DU) • An incentive for acquiring higher qualification • Modular work station for clerical staff • Medical reimbursement facility • Health Center facility • Canteen • CSD facility • Government vehicle for private purpose on a standard rate • Allotment of Government residences • B. Welfare Schemes implemented by DIAT (DU) • Provision of drinking water purifier • Celebration of Indian festival • Organizing cultural programmes • Establishment of employees cooperative society • Community Centre, Bank, Post Office, Grocery shop, Vegetable shops, Stationery shops, Refreshment Center etc., on the campus	• Health Center facility • Orientation programme • Sports activity • Social activity • Cultural activity • Industrial visit • National laboratory visit • Community Centre, Bank, Post Office, Grocery shop, Vegetable shops, Stationary shops, Refreshment Center, etc., on the campus

6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

• The 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 (CAG). Internal Audit is conducted every quarter, whereas

statutory Audit is undertaken after the end of the financial year. • In addition to this, the Institute being wholly funded by DRDO, Ministry of Defence. Hence, the CAG audit is also conducted for the financial year. • Audited financial statements and the Audit report is approved by the Finance Committee, Board of Management, Governing Council and General Body. These reports are also placed before the house of Parliament for its final adoption.

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
Mr.Vivek Kulkarni, IAS, Retd. (Visiting Prof.IISC, Bengaluru)	200000	Best Student Award in Technology Management

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6.4.3 – Total corpus fund generated

25493390

6.5 – Internal Quality Assurance System

6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	No		Yes	Inter Department
Administrative	No		Yes	Inter Department

6.5.2 – What efforts are made by the University to promote autonomy in the affiliated/constituent colleges? (if applicable)

Not Applicable

6.5.3 – Activities and support from the Parent – Teacher Association (at least three)

1. The committee shall be responsible to inform about the students' performance to their parents 2. The committee shall be responsible collect the data regarding internal assessment marks and attendance. 3. Letters/Mails shall be sent to individual parents' mentioning about the internal assessment marks and attendance. 4. In case of any issues the committee guides the parent and the student to their respective subject teacher/the mentor for their better performance. 5. In case of any suggestions given by the parents the committee shall discuss with the higher authorities to be implemented.

6.5.4 – Development programmes for support staff (at least three)

1. The staffs were given the budget to attend various development programs like, Intellectual property rights, Quality Assurance, Labour management, Safety management, Time management, etc. 2. Staffs are given the provision to register for Masters and PhD programs. 3. Staffs are given orientation on theoretical subjects Advance Microscopic, Advance manufacturing technologies, health ad safety, fatigue and fracture, Microwave and radar technology for handling and designing the laboratory classes and lectures.

6.5.5 – Post Accreditation initiative(s) (mention at least three)

1. Timely follow-up of milestones on administrative related activities. 2. Industrial interface workshops were conducted for improving the placement of

the institute. 3. Choice based credits systems and yearly upgradation of the syllabus as per the requirement of DRDO and various industries were carried out. Students, staffs and faculty members were motivated to publish in reputed international journals and patents. Budgets were allocated for procurement and development of Advanced analytical and modelling laboratories.

6.5.6 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	Yes
c)ISO certification	No
d)NBA or any other quality audit	Yes

6.5.7 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2016	• IQAC Chairman oriented all the faculty members to publish papers in peer reviewed UGC approved journals • All faculty members should attend FDP, Orientation, Refresher courses, workshops, conferences etc	01/03/2016	01/03/2016	01/03/2016	40
2017	• IQAC Chairman oriented all the faculty members to publish papers in high impact journals with reputed publisher • Should submit more research projects • Should collaborate with IITs, NITs and	02/01/2017	02/01/2017	02/01/2017	40

Central Universities		

CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Impulse 2017	01/11/2016	04/11/2016	50	100

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
The Institute has an Environment Committee who looks after the regular affairs of sustainability and ecological consciousness within the campus and its premises. In this regard, the following practices were adopted by the Institute. Environment Initiative: A lush green campus surrounds the DIAT. New saplings/plants are grown on the entire campus to reduce carbon footprints. The Institute conducts a green audit through an environment committee. The guest faculty delivers lectures on the environment. Environmental Enrichment programme were organized by the Hostel committee within the campus and outside the campus. Swachh Bharat Mission: To spread the message of Sanitization within and outside the campus, DIAT regularly follows the Prime Minister of India launched Swachh Bharat Mission. Under the mission, every year, DIAT adopts few villages and ensures that the open defecation free (ODF) behaviors are sustained and give lessons on solid and liquid waste management. Hostel students along with faculty visited Govt higher secondary Schools in the nearby village of Khadakwashla and Dunje Gaon. Energy Conservation: For conserving the energy, we use various electrical and electronic devices to auto cut the power when not in use. The old power-consuming tube lights were replaced by the LED lights in the entire Institute. The faculty has given orientation about enery conservation to the local Schools. Use of Renewable Energy: Biogas plant was constructed in the technical area, and it is in use at Cafetaria. The plant reduces the burden of LPG gas. Several more such biogas plants are under installation. Solar power is used on the campus and is being planned to be utilized for cooking purposes. Several faculties are pursuing research in the field of Solar Cells. The institute offered prizes to School students on projects related renewable energy. Water Harvesting: We use a spray system for watering the plants and harvest rainwater for gardening. We conserve a lot of water by use of fertilizer for plantation. Sprinkler system were introduced for watering the saplings. Plastic-free Campus: The DIAT campus has been made free from the plastic, and the single-use of polythene bags are banned. Glass water bottles are used instead of plastic water bottles inside the Institute. M.Tech Projects on recycling of the plastics are introduced in the institute. Carbon Neutrality: The staff and students are encouraged to use bicycles within the campus. Students are directed to park their vehicles outside the University in a covered car parking place to keep the environment pollution-free. The bus services have been started to discourage students from using individual vehicles, thus, avoiding pollution.

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries

Physical facilities	Yes	1
Provision for lift	Yes	1
Ramp/Rails	Yes	1
Braille Software/facilities	No	0
Rest Rooms	Yes	1
Scribes for examination	No	0

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2016	0	0	01/01/2016	0	Nil	Nil	0

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7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
The Central Civil Services (Conduct) Rules	01/07/2016	The Central Civil Services (Conduct) Rules, 1964 as amended from time to time is applicable mutatis mutandis to both teaching and Non-Teaching Officers staff of the Institute.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Gandhi Jayanti celebration with Swachh Bharat Abhiyan to promote the values and ethics of Mahatma Gandhi	02/10/2016	02/10/2016	92
National Integrity day	19/11/2016	19/11/2016	65
National Integrity day	26/10/2016	31/10/2016	210

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7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

• 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 • Tree plantation programmes are organized • The campus has been declared "plastic-free" zone • 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.

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

• Timely promotions of teaching and non-teaching staff • Promotion of teaching, learning, evaluation and research activities through computer-aided methods. • Conduct of DIAT Distinguished Lecture Series - DIAT invites distinguished from varied fields to deliver a talk and interact with the faculty and students every month • Open Book exam - DIAT encourages the conduct of open book exam to the review that the students do not follow the ROTE supplies of studies but understand the concept of every topic and to able to apply them • Use of technologies around the campus for a Green and energy conservation atmosphere • Timely Convocation: DIAT has its convocation timely every year and considered to be significant for student's carrier growth. • Timely Publication of Annual Reports: The Annual Report of every academic year is ready by Jul-Aug of the following year. This goes a long way in establishing the culture of transparency in this institution. • Cultural Fest: DIAT ensures the students overall development by encouraging them to hold a cultural and sports fest every year and showcase their talent. • Proper investigations and disposal of the grievance

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

https://www.diat.ac.in/query-from-naac/

7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

DIAT aspires to be a center of Excellence of international repute for Education, Training, and research in Advanced Technologies to strengthen national security and self-reliance. 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 customers 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 the professional development of personnel for productive performance. • To strengthen collaboration with the Armed Forces, Academia, RD Institutions, and Industry. • To generate adequate financial resources for sustainable Growth and Development DIAT has following distinctions: • Only Institute offering Post Graduate Technical programs. • Institute offers exclusive M Tech programme on defence and mostly for the defence personnel. • Institute is having state of art research facilities. • Offers higher education at lowest fee and, free for sponsored students of DRDO, Tri-services. • Flexible academic curriculum and, Institute has the freedom to upgrade the course curriculum at any point of time to enrich the existing courses. • Students have the easy access to all DRDO labs to carry our M Tech thesis. • Institute has the concept of practice school during the summer vacation. • Synergetic academic systems among services, DRDO defence PSUs sponsored candidates as well as GATE qualified civilian students. • DIAT is the only technological University under the Ministry of Defence funded by Defence R D.

Provide the weblink of the institution

8.Future Plans of Actions for Next Academic Year

• Revisiting of existing course curriculum. • Efforts for generation of revenue through sponsored R D project/STTPs/Consultancy etc. to achieve self sustainability. • Increase of student strength up to 1000 at any points of time. • Improvement of faculty strength on specialized domain. • Efforts for the accreditations by various agencies at National and International levels such as NAAC, NIRF, QS etc. • Improvement of training and placement of students • Expansion of M Tech programmes as per the need of DRDO/Defence. • Plan for Institution of National Importance.