Indian Institute of Space Science and Technology

Thiruvananthapuram 695 547

Department of Aerospace Engineering

Academic Audit Report

2020-2021

Academic audit committee

Internal members

Sl.No.	Faculty Name	Role
1	**Dr. M. Deepu, Professor, Aerospace Engineering**	Chairman
2	**Dr. C. R. Bijudas, Associate Professor, Aerospace Engineering**	Convenor
3	**Dr. Sam Noble, Assistant Professor, Aerospace Engineering**	Member
4	**Dr. Harsha Simha M S, Associate Professor, Avionics**	Member

External members

Sl. No.	Name	Designation	Email	Mobile	Name of the Institute	Role
1	**Dr. Rakesh J Pillai**	Associate Professor	rakeshpilla@iitpkd.ac.in	9502078377	IIT Palakkad	Member

I Department profile

1	No. of Permanent Faculty Members	22
2	No. of Adjunct Faculty Members	2
3	No. of Contract Faculty Members	1
4	No. of Guest Faculty Members	0

5	No. of Emeritus Professors / Visiting Faculty Members	0
6	No. of Technical Staff / Tutors (Permanent)	6
7	No. of Technical Staff / Tutors (Contract)	12
8	No. of JRFs/ SRF/ JPF (excluding PhD students)	0
9	No. of Project Fellows	0
10	No. of Research Associates	0
11	No. of Post Doctoral Fellows	0

II Details of academic programmes and student strength in numbers

A .Undergraduate/ Dual Degree / Postgraduate programmes

Sl. No.	Programme	Year	Sanctioned strength in the academic year	Student strength in the academic year (At the start of even semester)	Female student strength in the academic year	No. of passed out Students	Pass Percentage
1	B.Tech.: Aerospace Engineering	I Year	69	65	2	0	0.00
2	B.Tech.: Aerospace Engineering	II Year	0	66	3	0	0.00
3	B.Tech.: Aerospace Engineering	III Year	0	60	4	0	0.00
4	B.Tech.: Aerospace Engineering	IV Year	0	57	4	56	98.25
5	M.Tech.: Aerodynamics and Flight Mechanics (Standalone)	I Year	10	10	1	0	0.00
6	M.Tech.: Aerodynamics and Flight Mechanics (Standalone)	II Year	0	7	0	7	100.00
7	M.Tech.: Structures and Design (Standalone)	I Year	10	4	0	0	0.00
8	M.Tech.: Structures and Design (Standalone)	II Year	0	9	2	9	100.00

9	M.Tech.: Thermal and Propulsion (Standalone)	I Year	10	7	0	0	0.00
10	M.Tech.: Thermal and Propulsion (Standalone)	II Year	0	6	0	6	100.00
Total			99	291	16	78	

B. Details of Student Demand Ratio

Programme	No. of students applied	No. of students admitted	Comments	Suggestions
B.Tech.: Aerospace Engineering	4555	64		
M.Tech.: Aerodynamics and Flight Mechanics (Standalone)	717	10		
M.Tech.: Structures and Design (Standalone)	851	9		
M.Tech.: Thermal and Propulsion (Standalone)	734	9		

C. Doctoral Degree

PhD	During the academic year			Degree awarded
	Sanctioned seats	No. of students admitted	Current student strength	
PART TIME	3	3	20	2
FULL TIME	5	5	30	2
Total	8	8	50	4

III Details of core courses and electives in each programme

Sl. No.	Programme Name	Course code	Course name	Core/ Elective	Credits assigned	As per curriculum revision/ newly added elective course/ syllabus revised
1	B.Tech.: Aerospace Engineering	AE411	Rocket Propulsion	Core	3	As per curriculum revision
2	B.Tech.: Aerospace Engineering	AE412	Aerospace Vehicle Design	Core	3	As per curriculum revision
3	B.Tech.: Aerospace Engineering	AE468	Computational Fluid Mechanics	Elective	3	As per curriculum revision
4	B.Tech.: Aerospace Engineering	AE473	Finite Element Method	Elective	3	As per curriculum revision
5	B.Tech.: Aerospace Engineering	AE483	Robot Mechanisms and Technology	Elective	3	As per curriculum revision

6	B.Tech.: Aerospace Engineering	AE489	Aerospace Materials and Processes	Elective	3	As per curriculum revision
7	B.Tech.: Aerospace Engineering	AE491	Human Behaviour in Organizations	Institute Elective	2	As per curriculum revision
8	B.Tech.: Aerospace Engineering	AE451	Summer Internship and Training	Core	3	As per curriculum revision
9	B.Tech.: Aerospace Engineering	AE431	Flight Mechanics and Propulsion Lab	Core	1	As per curriculum revision
10	B.Tech.: Aerospace Engineering	AE453	Comprehensive Viva-Voce	Core	3	As per curriculum revision
11	B.Tech.: Aerospace Engineering	AE454	Project Work	Core	12	As per curriculum revision
12	B.Tech.: Aerospace Engineering	AE311	Compressible Flow	Core	3	As per curriculum revision
13	B.Tech.: Aerospace Engineering	AE312	Atmospheric Flight Mechanics	Core	3	As per curriculum revision
14	B.Tech.: Aerospace Engineering	AE313	Spaceflight Mechanics	Core	3	As per curriculum revision
15	B.Tech.: Aerospace Engineering	AE314	Theory of Elasticity	Core	3	As per curriculum revision
16	B.Tech.: Aerospace Engineering	AE332	Modeling and Analysis Lab	Core	2	As per curriculum revision
17	B.Tech.: Aerospace Engineering	AE321	Air-Breathing Propulsion	Core	3	As per curriculum revision
18	B.Tech.: Aerospace Engineering	AE322	Aerospace Structures	Core	3	As per curriculum revision
19	B.Tech.: Aerospace Engineering	AE323	Optimizing Techniques in Engineering	Core	3	As per curriculum revision
20	B.Tech.: Aerospace Engineering	AE457	Flight Dynamics and Control	Elective	3	As per curriculum revision
21	B.Tech.: Aerospace Engineering	AE458	Structural Acoustics and Noise Control	Elective	3	As per curriculum revision
22	B.Tech.: Aerospace Engineering	AE459	Multi Rigid Body Dynamics	Elective	3	As per curriculum revision
23	B.Tech.: Aerospace Engineering	AE474	Fracture Mechanics and Fatigue	Elective	3	As per curriculum revision
24	B.Tech.: Aerospace Engineering	AE482	High Temperature Gas Dynamics	Elective	3	As per curriculum revision
25	B.Tech.: Aerospace Engineering	AE493	Two-Phase Flow and Heat Transfer	Elective	3	As per curriculum revision

26	B.Tech.: Aerospace Engineering	AE331	Aerodynamics Lab	Core	2	As per curriculum revision
27	B.Tech.: Aerospace Engineering	AE341	Aerospace Structures Lab	Core	1	As per curriculum revision
28	B.Tech.: Aerospace Engineering	AE342	Manufacturing Process Lab	Core	1	As per curriculum revision
29	B.Tech.: Aerospace Engineering	AE211	Engineering Thermodynamics	Core	3	syllabus revised
30	B.Tech.: Aerospace Engineering	AE212	Mechanics of Solids	Core	3	syllabus revised
31	B.Tech.: Aerospace Engineering	AE213	Fluid Mechanics	Core	3	syllabus revised
32	B.Tech.: Aerospace Engineering	AE214	Material Processing Techniques	Core	3	syllabus revised
33	B.Tech.: Aerospace Engineering	AE232	Machine Drawing	Core	1	syllabus revised
34	B.Tech.: Aerospace Engineering	AE221	Aerodynamics	Core	3	syllabus revised
35	B.Tech.: Aerospace Engineering	AE222	Heat Transfer	Core	3	syllabus revised
36	B.Tech.: Aerospace Engineering	AE223	Applied Dynamics and Vibration	Core	3	syllabus revised
37	B.Tech.: Aerospace Engineering	AE224	Machining and Precision Manufacturing	Core	3	syllabus revised
38	B.Tech.: Aerospace Engineering	AE241	Thermal and Fluid Lab	Core	1	syllabus revised
39	B.Tech.: Aerospace Engineering	AE242	Metrology and Computer Aided Inspection Lab	Core	2	syllabus revised
40	B.Tech.: Aerospace Engineering	AE231	Strength of Materials Lab	Core	1	syllabus revised
41	B.Tech.: Aerospace Engineering	AE111	Introduction to Aerospace Engineering	Core	3	As per curriculum revision
42	B.Tech.: Aerospace Engineering	AE131	Basic Engineering Lab	Core	1	As per curriculum revision
43	B.Tech.: Aerospace Engineering	AE141	Engineering Graphics	Core	2	As per curriculum revision
44	B.Tech.: Avionics	AE491	Human Behaviour in Organizations	Institute Elective	2	As per curriculum revision
45	B.Tech.: Electronics and Communication Engineering(Avionics)	AE111	Introduction to Aerospace Engineering	Core	3	As per curriculum revision

46	B.Tech.: Electronics and Communication Engineering(Avionics)	AE131	Basic Engineering Lab	Core	1	As per curriculum revision
47	B.Tech.: Electronics and Communication Engineering(Avionics)	AE141	Engineering Graphics	Core	2	As per curriculum revision
48	Dual Degree: Engineering Physics	AE216	Thermodynamics	Core	3	syllabus revised
49	Dual Degree: Engineering Physics	AE225	Fluid Dynamics	Core	3	syllabus revised
50	Dual Degree: Engineering Physics	AE111	Introduction to Aerospace Engineering	Core	3	As per curriculum revision
51	Dual Degree: Engineering Physics	AE131	Basic Engineering Lab	Core	1	As per curriculum revision
52	Dual Degree: Engineering Physics	AE141	Engineering Graphics	Core	2	As per curriculum revision
53	M.Tech.: Thermal and Propulsion	AE751	Seminar	Core	1	As per curriculum revision
54	M.Tech.: Thermal and Propulsion	AE752	Project Work – Phase I	Core	15	As per curriculum revision
55	M.Tech.: Thermal and Propulsion	AE752	Project Work - Phase II	Core	17	As per curriculum revision
56	M.Tech.: Thermal and Propulsion	AE601	Mathematical Methods in Aerospace Engineering	Core	3	As per curriculum revision
57	M.Tech.: Thermal and Propulsion	AE602	Elements of Aerospace Engineering	Core	3	As per curriculum revision
58	M.Tech.: Thermal and Propulsion	AE611	Fluid Dynamics	Core	3	As per curriculum revision
59	M.Tech.: Thermal and Propulsion	AE612	Aerospace Propulsion	Core	3	As per curriculum revision
60	M.Tech.: Thermal and Propulsion	AE613	Compressible Flow	Core	3	As per curriculum revision
61	M.Tech.: Thermal and Propulsion	AE614	Conduction and Radiation Heat Transfer	Core	3	As per curriculum revision
62	M.Tech.: Thermal and Propulsion	AE615	Fundamentals of Combustion	Core	3	As per curriculum revision
63	M.Tech.: Thermal and Propulsion	AE616	Computational Fluid Dynamics	Core	3	As per curriculum revision
64	M.Tech.: Thermal and Propulsion	AE810	Convective Heat Transfer	Elective	3	As per curriculum revision
65	M.Tech.: Thermal and Propulsion	AE814	Turbomachines	Elective	3	As per curriculum revision

66	M.Tech.: Thermal and Propulsion	AE815	Microscale and Nanoscale Heat transfer	Elective	3	As per curriculum revision
67	M.Tech.: Thermal and Propulsion	AE820	Two-Phase Flow and Heat Transfer	Elective	3	As per curriculum revision
68	M.Tech.: Thermal and Propulsion	AE802	Thermal and Propulsion Lab	Core	1	As per curriculum revision
69	M.Tech.: Aerodynamics and Flight Mechanics	AE751	Seminar	Core	1	As per curriculum revision
70	M.Tech.: Aerodynamics and Flight Mechanics	AE752	Project Work Phase - I	Core	17	As per curriculum revision
71	M.Tech.: Aerodynamics and Flight Mechanics	AE752	Project Work - Phase II	Core	17	As per curriculum revision
72	M.Tech.: Aerodynamics and Flight Mechanics	AE601	Mathematical Methods in Aerospace Engineering	Core	3	As per curriculum revision
73	M.Tech.: Aerodynamics and Flight Mechanics	AE603	Aerodynamics	Core	3	As per curriculum revision
74	M.Tech.: Aerodynamics and Flight Mechanics	AE604	Atmospheric Flight Mechanics	Core	3	As per curriculum revision
75	M.Tech.: Aerodynamics and Flight Mechanics	AE605	Spaceflight Mechanics	Core	3	As per curriculum revision
76	M.Tech.: Aerodynamics and Flight Mechanics	AE612	Aerospace Propulsion	Elective	3	As per curriculum revision
77	M.Tech.: Aerodynamics and Flight Mechanics	AE613	Compressible Flow	Elective	3	As per curriculum revision
78	M.Tech.: Aerodynamics and Flight Mechanics	AE606	Flight Dynamics and Control	Core	3	As per curriculum revision
79	M.Tech.: Aerodynamics and Flight Mechanics	AE814	Turbomachines	Elective	3	As per curriculum revision
80	M.Tech.: Aerodynamics and Flight Mechanics	AE825	Computational Methods for Compressible Flows	Core	3	As per curriculum revision

81	M.Tech.: Aerodynamics and Flight Mechanics	AE829	High Temperature Gas Dynamics	Elective	3	As per curriculum revision
82	M.Tech.: Aerodynamics and Flight Mechanics	AE844	Multidisciplinary Design Optimization	Elective	3	As per curriculum revision
83	M.Tech.: Aerodynamics and Flight Mechanics	AE845	Boundary Layer Theory	Elective	3	As per curriculum revision
84	M.Tech.: Structures and Design	AE851	Seminar	Core	1	As per curriculum revision
85	M.Tech.: Structures and Design	AE853	Project Work-Phase I	Core	15	As per curriculum revision
86	M.Tech.: Structures and Design	AE853	Project Work - Phase II	Core	17	As per curriculum revision
87	M.Tech.: Structures and Design	AE601	Mathematical Methods in Aerospace Engineering	Core	3	As per curriculum revision
88	M.Tech.: Structures and Design	AE602	Elements of Aerospace Engineering	Core	3	As per curriculum revision
89	M.Tech.: Structures and Design	AE621	Advanced Solid Mechanics	Core	3	As per curriculum revision
90	M.Tech.: Structures and Design	AE622	Finite Element Method	Core	3	As per curriculum revision
91	M.Tech.: Structures and Design	AE623	Structural Dynamics	Core	3	As per curriculum revision
92	M.Tech.: Structures and Design	AE840	Aerospace Materials and Processes	Elective	3	As per curriculum revision
93	M.Tech.: Structures and Design	AE869	Robot Mechanisms and Technology	Elective	3	As per curriculum revision
94	M.Tech.: Structures and Design	AE624	Mechanics of Composite Materials	Core	3	As per curriculum revision
95	M.Tech.: Structures and Design	AE833	Multi Rigid Body Dynamics	Elective	3	As per curriculum revision
96	M.Tech.: Structures and Design	AE835	Advanced Finite Element Method	Elective	3	As per curriculum revision
97	M.Tech.: Structures and Design	AE837	Fracture Mechanics and Fatigue	Elective	3	As per curriculum revision
98	M.Tech.: Structures and Design	AE842	Structural Acoustics and Noise Control	Elective	3	As per curriculum revision

99	M.Tech.: Structures and Design	AE844	Multidisciplinary Design Optimization	Elective	3	As per curriculum revision
100	M.Tech.: Structures and Design	AE803	Aerospace Structures Lab	Core	1	As per curriculum revision
101	Ph.D.: Course Work - January	AE615	Fundamentals of Combustion	Credited	3	As per recommendation of DC
102	Ph.D.: Course Work - January	AE616	Computational Fluid Dynamics	Credited	3	As per recommendation of DC
103	Ph.D.: Course Work - January	AE632	Finite Element Method		0	As per recommendation of DC
104	Ph.D.: Course Work - January	AE631	Advanced Solid Mechanics		0	As per recommendation of DC
105	Ph.D.: Course Work - July	AE623	Structural Dynamics	Credited	0	As per recommendation of DC
106	Ph.D.: Course Work - July	AE621	Advanced Solid Mechanics	Credited	3	As per recommendation of DC
107	Ph.D.: Course Work - July	AE601	Mathematical Methods in Aerospace Engineering	Credited	3	As per recommendation of DC
108	Ph.D.: Course Work - July	AE613	Compressible Flow	Credited	3	As per recommendation of DC
109	Ph.D.: Course Work - July	AE815	Computational Methods in Compressible Flow	Credited	3	As per recommendation of DC
110	Ph.D.: Course Work - July	AE622	Finite Element Method	Credited	3	As per recommendation of DC
111	Ph.D.: Course Work - July	AE840	Aerospace Materials and Processes	Credited	3	As per recommendation of DC
112	Ph.D.: Course Work - July	AE611	Fluid Dynamics	Credited	3	As per recommendation of DC
113	Ph.D.: Course Work - July	AE869	Robot Mechanisms and Technology	Credited	3	As per recommendation of DC

IV Review on Curriculum

Criteria	Reponse	Revision made during this academic year	Comments on curriculum, if any	Suggestions for improvement
Qualitative comment on the content of the curriculum	EXCELLENT	no	Students do practical exercises at ISRO Labs. This gives them an exposure of the desired learning in an industry environment	More activity/ project oriented content can be incorporated wherever possible.

V Review on Teaching, Learning and Evaluation

Sl. No.	Criteria	Response based on criteria	Comments	Suggestions
1	Any innovative teaching methods/aids adopted?	Yes Course projects, Term papers with CDIO philosophy		
2	Is any e-learning modules developed?	Yes On-line classes with e-learning resources during COVID	Moodle based content enhancement is done in many courses	
3	**Student evaluation procedure**			

Criteria	Response	Comments	Suggestions
Course evaluation	Internal		
Project evaluation	Internal External		

4	**Evaluation components**			
Criteria		**Response**	**Comments**	**Suggestions**
Theory		Continuous assesment and end semester exam, Continuous assesment and course project		
Lab		Continuous assesment and end semester exam, Continuous assesment and course project		

Project/ Internship/ Seminar		Mid term evaluaion and final evaluation		
5	**Continuous Assessment Components**			
Theory		Quiz I Quiz II Others - Assignments, projects and Tutorials and End semester evaluation		
Lab		Class exercise evaluation & End Semester Examination Lab Projects		
6	Is there any remedial coaching to support weak performers?	Yes		A slow learning track may be formulated for weak students to learn with lesser than stipulated credits in each semester.
7	Is academic feedback from students taken regularly?	Yes		
8	What are the steps taken based on student's feedback?	Modulation of delivery of classes is modified based on the feedback		
9	Is Class committee meetings conducted?	Yes Meetings are conducted twice a semester after each Quiz		

VI Department faculty credentials

Sl. No.	Criteria	Response	Comments	Suggestions
1	Percentage of faculty with PhD	96		
2	No. of journal articles published	37		More publications could be attempted by increasing the intake of PhD scholars
3	No. of books published	0		

4	No. of book chapters published	1		
5	No. of invited talks/ conferences/ workshops attended	10		
6	No. of research projects funded by IIST			
7	No. of research projects funded through ASRG/IIST-ISRO/DoS			
8	No. of externally funded research projects like CSIR, DST, DRDO etc.			
9	No. of patents published/ awarded	1		
10	No. of patents filed	0		A hassle free and quick filing process for patents may be adopted
11	No. of faculty/student awards received	3		
12	No. of conferences/Workshops/ seminars/Colloquium Organized	0		
13	No. of conference paper published	10		
14	No. of visits made by the faculty/ student for research collaborations/invited talks/ conferences abroad			
15	No. of Industry collaborative projects			Institute may formulate guidelines for encouraging industry interaction.
16	No. of ISRO mission related projects/ activities	1		Students may be included in ASRG projects
17	No. of consultancy services entertained			

VIII Details of student co-curricular activities

Criteria	Response	Comments	Suggestions

Whether students are involved in extra curricular & co-curricular activities?	Yes Students actively participate in Conscientia and Dhanak Festivals		Selected students may be encouraged to participate in sports and arts competitions at different levels
Whether students are doing internship abroad?	IIST funded Externally sponsored		
Whether students are doing internship at national academic institutes / universities?	IIST funded Self sponsored	This happens at IIST itself in the research labs with faculty mentorship	
Whether students are doing internship at ISRO/ Industries/ R&D institutes?	Yes IIST funded Self sponsored		
Whether the department conducts outreach programs?	Yes Students are active participants of Nirmaan		
Whether department has alumni activities?	No		

IX Details of placement/ higher studies of students

Criteria	UG	PG	PhD	Comments	Suggestions
No. of students placed	40	5	0		
No. of students opted for higher studies	3	2	0		
No. of students cleared GATE/ SLET/ NET/ CSIR/ UGC/ Others etc.	0	0	0		

X Infrastructure in the Department

Sl. No.	Criteria	Response	Comments	Suggestions
1	No. of classrooms	8		Augment class rooms with ICT features
2	No. of seminar/ conference rooms	3		
3	No. of instruction labs	16		
4	No. of research labs	11		

5	No. of full-fledged e-learning classrooms	2		More classes can be converted to e-learning ones.
6	No. of computing labs	3		Latest hardware and software updating can be done continually
7	Is there any lab with potential for centre of excellence?	Yes, APLD Lab		
8	Is there any labs sponsored by external agency?	No		
9	Inter-disciplinary research facility	Yes, APLD, Engineering Workshop, Micro Raman and Metrology		
10	Is there any common amenities like restroom, recreation club, etc.?	Yes, Restroom and Clubs		
11	Is there any facilities for differently abled?	Yes, Ramps and toilets		
12	Is there any Department library?	Yes		

XII Additional Information

1.	Does the curriculum of each programme offered by the department provide the Programme Educational Objectives (PEOs)/Programme Specific Outcomes (PSOs) and Programme Outcomes (POs)?	Yes
2.	Do the courses offered in each programme by the department provide the Course Objectives and Course Outcomes (COs) written in clear terms?	Yes
3.	Give the status of adopting Choice Based Credit System (CBCS) in the programmes offered by the department	Implemented
4.	Give the status of adopting Objective Based Education (OBE) in the programmes offered by the department.	Implemented
5.	Satisfaction level of support of academic, administrative, and other support units of the institution	Excellent
6.	The status of taking feedback from stakeholders and expert groups for revision and design of curriculum of a programme.	Student Faculty Alumni Employers
7.	The list of extension programmes conducted by the department	Introduction to Space Technology to Military Officers
8.	List Faculty Development Programme conducted (any programme aiming at updating the knowledge of faculty of the department).	

9.	Does students take projects involving Field work/Survey. If yes, give the list.	
10.	The List of MoU and MoAs, that are currently operational during the year.	
11.	Detail the mechanism adopted to help academically disadvantaged students to cope with academic requirements	Additional office hour discussions, Make-up classes and additional tutorials
12.	Detail the mechanism adopted to help students who perform very much below the class averages	Additional office hour discussions, Make-up classes and additional tutorials
13.	The total grant/revenue generated/received from different agencies by the department conducting research projects/consultancy services during the year.	
14.	The suggestions to improve the efficiency and effectiveness of the IIST system.	

XIII Strength of the Department (maximum 150 words)

A strong Department of Aerospace Engineering thrives on a three-pronged approach: dedicated students, a research-focused faculty, and a supportive staff. Committed students bring a thirst for knowledge and a drive to excel, pushing the boundaries of the field. Research-oriented faculty members, guide students with their expertise and passion for innovation. Rounding out this team is a skilled staff that provides essential support, ensuring a smooth learning environment and access to necessary hardware and other resources. This powerful combination makes a dynamic atmosphere where ideas flourish, research thrives, and the next generation of aerospace engineers is empowered to take on the challenges of tomorrow.

XIV Weakness of the Department (maximum 150 words)

Despite its strengths, the department also faces some challenges. Its smaller size can limit course offerings and research opportunities compared to larger programs. Additionally, a lack of female faculty can create a less diverse learning environment and potentially discourage women interested in the field. Finally, the department's rigorous curriculum, while fostering excellence, might be difficult for some students, potentially hindering the programme with several backlog students. Addressing these weaknesses through hiring more diverse faculty, mentorship programs, and a focus on interdepartmental collaborations could propel the department to even greater heights.

XV Challenges (maximum 150 words)

The department has challenges in the form of student burn out, lack of flexibility in curriculum and perceived difficulty in the area of aerospace start-ups. As the demanding academic workload doesn't translate directly into desired careers, students are disillusioned to opt for other career paths. The department also has a very slow growth in terms of programmes and focused research centers. There is lack of faculty expertise in many areas of Aerospace Engineering. The limited intake of PhD scholars also pose some challenges. Some global aspects like environmental pollution of aerospace vehicles and immense costs associated with research, development, and manufacturing pose challenges to the department

XVI Opportunities (maximum 150 words)

The department offers a unique launchpad for aspiring aerospace engineers. First and foremost, students gain access to state-of-the-art facilities and laboratories in an environment in which research scholars work. This not only allows them to develop practical skills alongside theoretical knowledge but also develop a research and innovative attitude. IIST further bridges the gap between academia and industry through internship programs at ISRO centers. Here, students tackle real-world problems and gain invaluable experience working alongside leading scientists and engineers. Additionally, IIST fosters a collaborative environment where undergraduates can participate in research projects with faculty or even scientists from ISRO-affiliated institutions. This exposure to cutting-edge research ignites a passion for innovation and prepares students for future postgraduate studies or careers in the field. Beyond ISRO, the program's strong foundation opens doors to opportunities in various aerospace and mechanical engineering sectors across India and the globe.

XVII Any other details relevant to the department

Final Recommendations

The department may consider hiring faculty with diversity in perspective More faculty may be hired with expertise in several areas which are not available in the institute at present. Enhance the PhD intake of the department. Devise a mechanism to have closer interaction with ISRO centers

On the day of visit, the team verified all the documents and records available in the department and evaluated the academic process. A detailed report of the audit is given above. The report is signed by the following:

Signature of Committee Members

1 **Dr. M. Deepu**, Professor, Aerospace Engineering: .....

2 **Dr. C. R. Bijudas**, Associate Professor, Aerospace Engineering: .....

3 **Dr. Sam Noble**, Assistant Professor, Aerospace Engineering: .....

4 **Dr. Harsha Simha M S**, Associate Professor, Avionics: .....

5 **Dr. Rakesh J Pillai**, Associate Professor, IIT Palakkad: .....

Approved by,

Dean Academics,

प्रोफ. कुरुविला जोसफ/Prof. Kuruvilla Joseph
डीन (शैक्षिकी), आईआईएसटी
Dean (Academics), IIST

IIST