

### YEARLY STATUS REPORT - 2020-2021

### Part A

### **Data of the Institution**

1. Name of the Institution Indian Institute of Space Science

and Technology

• Name of the Head of the institution Dr V K Dadhwal

• Designation Director

• Does the institution function from its own Yes

campus?

04712568403 • Phone no./Alternate phone no.

• Mobile no 9652110003

• Registered e-mail registrar@iist.ac.in

• Alternate e-mail address director@iist.ac.in

• City/Town Thiruvananthapuram

• State/UT Kerala

• Pin Code 695547

2.Institutional status

Deemed • University

• Type of Institution Co-education

Rural Location

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• Name of the IQAC Co-ordinator/Director Dr K S Subrahamanian Moosath

• Phone no./Alternate phone no 0471256538

• Mobile 9495743148

• IQAC e-mail address iqac@iist.ac.in

• Alternate Email address smoosath@iist.ac.in

3. Website address (Web link of the AQAR (Provious Academic Year)

(Previous Academic Year)

4. Whether Academic Calendar prepared during the year?

• if yes, whether it is uploaded in the Institutional website Web link:

Yes

https://www.iist.ac.in/igac

### **5.Accreditation Details**

Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	В	2.87	2013	08/07/2013	07/07/2018

### 6.Date of Establishment of IQAC

16/02/2012

## 7.Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/ Depart ment/Faculty	Scheme	Funding agency	Year of award with duration	Amount
Nil	Nil	Nil	0	0

### 8. Whether composition of IQAC as per latest

**NAAC** guidelines

• Upload latest notification of formation of IQAC

View File

Yes

### 9.No. of IQAC meetings held during the year

 The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website.
 (Please upload, minutes of meetings and action taken report) No

• (Please upload, minutes of meetings and No File Uploaded action taken report)

10. Whether IQAC received funding from any No of the funding agency to support its activities during the year?

• If yes, mention the amount

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

• Due to Covid 19 pandemic, the classes were conducted through Learning Management Systems (LMS) and online platform. • As the classes were conducted through online, the evaluation weightages for the various components of the theory courses were changed from 15 marks for each of the two quizzes and 50 marks for the end semester examination to 20 marks for each of the two quizzes and 40 marks for the end semester examination. The component of 20 marks weightage for the Tecahers Assessment, however remained the same. The duration of the end semester examination, however was reduced to 2 hours for the online exam from 3 hours. • As the examination was conducted in online mode, the students were given adequate and additional uploading time over and above the regular online . Due to delay in the conduct and declaration of JEE (Advanced) Examination 2020, the first year UG classes for the academic session 2020-21 could commence only by last week of November 2020. Keeping in mind the need for the first year UG students who joined in 2020-21 to be aligned with their seniors after one year, the institute decided to conduct 6 days week online classes (including classes on Saturday morning sessions) instead of the usual 5 day week to compensate and make up for the late commencement of first year UG classes.

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

Plan of Action	Achievements/Outcomes
• Due to Covid pandemic, the selection of PG students through interview was held through online platform.	Proposed and accepted
Entrance examination for PhD admission was also conducted through online mode.	Proposed and accepted
• Due to Covid pandemic, the institute decided to conduct its Convocation through online	Proposed and accepted
Due to Covid pandemic, the institute decided to continue with online teaching and online examinations	Proposed and accepted

## 13. Whether the AQAR was placed before statutory body?

No

• Name of the statutory body

Name	Date of meeting(s)
Nil	Nil

14. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to Assess the functioning?

No

15. Whether institutional data submitted to AISHE

Part A				
Data of the Institution				
1.Name of the Institution	Indian Institute of Space Science and Technology			
Name of the Head of the institution	Dr V K Dadhwal			
Designation	Director			
<ul> <li>Does the institution function from its own campus?</li> </ul>	Yes			
• Phone no./Alternate phone no.	04712568403			
Mobile no	9652110003			
Registered e-mail	registrar@iist.ac.in			
Alternate e-mail address	director@iist.ac.in			
• City/Town	Thiruvananthapuram			
• State/UT	Kerala			
• Pin Code	695547			
2.Institutional status				
• University	Deemed			
• Type of Institution	Co-education			
• Location	Rural			
Name of the IQAC Co- ordinator/Director	Dr K S Subrahamanian Moosath			
Phone no./Alternate phone no	0471256538			
• Mobile	9495743148			
• IQAC e-mail address	iqac@iist.ac.in			

Alternate Email address				smoosa	th@i	ist.ac	.in		
3.Website address (Web link of the AQAR (Previous Academic Year)				https://www.iist.ac.in/iqac					
4. Whether Academic Calendar prepared during the year?				Yes					
• if yes, whether it is uploaded in the Institutional website Web link:									
5.Accreditation	De	etails							
Cycle	Cycle Grade		CGPA		Year of Accreditation		Validity from		Validity to
Cycle 1	В		2.87		2013	3	08/07	/201	07/07/201
6.Date of Estab	lish	ment of IQA	<b>C</b>		16/02/	2012	<b>—</b>		
7.Provide the lie UGC/CSIR/DS		-			•			ment-	
Institution/ Depar scheme tment/Faculty		Funding agency		Year of award An with duration		mount			
Nil		Nil		Ni	1		0		0
8.Whether composition of IQAC as per latest NAAC guidelines				er latest	Yes				
Upload latest notification of formation of IQAC				View File	<u>e</u>				
9.No. of IQAC meetings held during the year				0					
The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website.  (Please upload, minutes of meetings and action taken report)				No					
(Please upload, minutes of meetings and action taken report)				No File U	Jploade	ed			

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13. Whether the AQAR was placed before statutory body?	No
Name of the statutory body	
Name	Date of meeting(s)
Name Nil	Date of meeting(s) Nil
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19.Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course)  20.Focus on Outcome based education (OBE):Focus on Outcome based education (OBE):			
Extended Profile			
1.Programme			
1.1	19		
Number of programmes offered during the year:			
1.2	7		
Number of departments offering academic programmes			
2.Student			
2.1	794		
Number of students during the year			
2.2	222		
Number of outgoing / final year students during the year:			
2.3	794		
Number of students appeared in the University examination during the year			
2.4	0		
Number of revaluation applications during the year			
3.Academic	<u> </u>		
3.1	251		
Number of courses in all Programmes during the year			

3.2	102
Number of full time teachers during the year	
3.3	123
Number of sanctioned posts during the year	
4.Institution	
4.1	20515
Number of eligible applications received for admissions to all the Programmes during the year	
4.2	145
Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year	
4.3	29
Total number of classrooms and seminar halls	
4.4	607
Total number of computers in the campus for academic purpose	
4.5	4143.94
Total expenditure excluding salary during the year (INR in lakhs)	

### Part B

### **CURRICULAR ASPECTS**

### 1.1 - Curriculum Design and Development

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

The institute initiated the process of implementing Programme outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the Programmes offered by departments from the academic year 2021-22.

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File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 1.1.2 - Number of Programmes where syllabus revision was carried out during the year

1

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 1.1.3 - Total number of courses having focus on employability/ entrepreneurship/ skill development offered by the University during the year

## 1.1.3.1 - Number of courses having focus on employability/ entrepreneurship/ skill development during the year

14

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 1.2 - Academic Flexibility

## 1.2.1 - Number of new courses introduced of the total number of courses across all programs offered during the year

3

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 1.2.2 - Number of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented during the year

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 1.3 - Curriculum Enrichment

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

Many papers offered by the institute such as Introduction to Economics, Social Science and Ethics, Principles of Management cover several aspects related to Gender, issues faced by women, children, Transgenders, disabled, marginalized and also covers values related to personal and professional life. Sustainable development and environmental management is also discussed in many of the papers. The projects and the Tribal visits undertaken by the Humanities department where students tries to collect empirical data from the society also helps them to understand the issues faced by different groups of people in society. This helps to develop scientists with a humane and social concern.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 1.3.2 - Number of value-added courses for imparting transferable and life skills offered during the year

3

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 1.3.3 - Total number of students enrolled in the courses under 1.3.2 above

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

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 1.3.4 - Number of students undertaking field projects / research projects / internships during the year

### 197

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 1.4 - Feedback System

# 1.4.1 - Structured feedback for design and review of syllabus — semester wise / is received from Students Teachers Employers Alumni

• Any 1 of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

 Feedback collected, analysed and action has been taken

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### TEACHING-LEARNING AND EVALUATION

### 2.1 - Student Enrollment and Profile

### 2.1.1 - Demand Ratio

### 2.1.1.1 - Number of seats available during the year

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 2.1.2 - Total number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the year (Excluding Supernumerary Seats)

### 2.1.2.1 - Number of actual students admitted from the reserved categories during the year

#### 145

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 2.2 - Catering to Student Diversity

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

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

Write description in maximum of 200 words

Continuous assessment forms 50% of the assessment in each course, while an end semester examination contributes for the remaining 50% (In the pandemic period the institute has been following a 60-40 model). The continuous assessment typically consists of two quizzes (15% each), and another 20% made up by way of assignments and class tests. A Class Committee (consisting of all course instructors and student representatives) meets in the middle of the semester for each batch of students assess the progress, and address any concerns by way of corrective measures. Advanced learners, based on their CGPA, are permitted to Audit up to two courses during the entire duration of the programme. Underperformers, have the option of appearing in a supplementary examination that is conducted within a month of publication of the results. Under performers in the first year are offered summer and winter courses, a short set of lectures, to aid them before the supplementary examination is conducted.

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Link For Additional Information	Nil

### 2.2.2 - Student - Full time teacher ratio during the year

Number of Students	Number of Teachers
794	102

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 2.3 - Teaching- Learning Process

2.3.1 - Student centric methods, such as experiential learning, participative learning and problemsolving methodologies are used for enhancing learning experiences

Where ever possible and necessary, a lab course is offered to complement the theory course. Some courses are tagged along with limited time projects, and certain long term projects that are already running in the institute, such as satellite development, instrumentation, etc. Several theory courses also follow a 3-1-0-(L-T-P) model, wherein three theory lectures in a week are supplemented by a tutorial hour that contributes to the total credits.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

2.3.2 - Teachers use ICT enabled tools including online resources for effective teaching and learning processes during the year

The institute is equipped with 4 smart class rooms with interactive screens. Institute also has an active subscription to Microsoft's Office-365 that covers all students and faculty. Besides, Moodle is significantly used in the conduct of class tests, assignments, and for uploading other study material. We also have a subscription (covering all students, researchers and faculty) to several scientific software (Matlab, Mathematica, Maple, Synopsis, CAMSOL, etc.) to aid in the learning process.

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File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 2.3.3 - Ratio of students to mentor for academic and other related issues during the year

### 2.3.3.1 - Number of mentors

21

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 2.4 - Teacher Profile and Quality

### 2.4.1 - Total Number of full time teachers against sanctioned posts during the year

### 123

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 2.4.2 - Total Number of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit. during the year

98

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 2.4.3 - Total teaching experience of full time teachers in the same institution during the year

### 2.4.3.1 - Total experience of full-time teachers

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 2.4.4 - Total number of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the year

7

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 2.5 - Evaluation Process and Reforms

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

Nil

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

18

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 2.5.2 - Total number of student complaints/grievances about evaluation against total number appeared in the examinations during the year

0

File Description	Documents
Upload relevant supporting document	No File Uploaded

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

The institute uses a web based application "iCampus" for continuous assessment, exam management, and other related activities such as attendance management. In the academic year 2020-21, as a consequence of the pandemic, the courses were conducted online, including examinations, assignments and class

tests, usinga Moodle based software - 'LMS Moodle'. Results are also published online through iCampus. The iCampusportal handles the following activities: Registration, Attendance, and result processing. LMS - Moodle is usedfor the following - Complete interface as a course page: Uploading of course related material, submission of assignments, class tests, Quiz and Final examination. Monitoring of the online examinations were done usingeither Microsoft Teams or Zoom, while students login into LMS-Moodle to attend examinations and submit answer sheets.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

A. 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 2.6 - Student Performance and Learning Outcomes

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

The institute initiated the process of implementing Programme outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the Programmes offered by departments from the academic year 2021-22 only.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

2.6.2 - Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution during the year

The institute initiated the process of implementing Programme outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the Programmes offered by departments from the

academic year 2021-22 only.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 2.6.3 - Number of students passed during the year

## 2.6.3.1 - Total number of final year students who passed the university examination during the year

223

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 2.7 - Student Satisfaction Survey

## 2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire) (results and details need to be provided as a web link)

https://www.iist.ac.in/igac

### RESEARCH, INNOVATIONS AND EXTENSION

### 3.1 - Promotion of Research and Facilities

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

Research forms a significant part of the goals envisaged for this premier and unique institute. The main aim is to seamlessly integrate research and development with academics and encourage faculty members to carry on research in their respective areas of interest. Research in IIST is built on the foundations of various academic programmes run by the Departments of Aerospace Engineering, Avionics, Chemistry, Earth and Space Sciences, Humanities, Mathematics and Physics. The major theme of our research portfolio is the application of cutting - edge science to forge new technologies. The institute has set up state-of-the-art facilities in all departments to support its research activities. The Institute is focused on strong interdisciplinary and collaborative work both within the various departments and across the various centres of ISRO, which will help to create the next generation technologies that would address the needs of local, national and global requirements. IIST also appreciates the

importance of research collaborations with reputed national/international academic and research organizations.

Ph.D programme in IIST commenced in the year 2010 with an objective to train and groom high quality manpower to support basic and applied research in science and technology to meet the R&D requirement of the country and Indian Space Programme in specific. Admission to Ph.D programme takes place in two sessions every year (January and July) and selection is through national level eligibility test (a valid UGC-CSIR-NET-JRF/Lectureship/fellowship or NBHM/JEST/GATE or screening test conducted by IIST) and an interview. Sixty nine Scholars have been awarded Ph.D degree so far and two hundred and five scholars are currently progressing with their doctoral research.

Research Council (RC) which is chaired by Dean (R & D) is a body that promotes and nurtures research activities and oversees research progress and other academic matters of the research scholars and the research projects. RC, while ensuring that the requirements and research challenges of space science and space technology are duly met, also reviews the rules and regulations periodically and recommends amendments, if any, to the Director, IIST.

IIST encourages faculty members to write research proposals for receiving external funding from Government as well as private funding agencies. Such project proposals will be reviewed, approved and forwarded by Dean R&D.

IIST also grants projects fully funded by the institute. Different schemes are available for project funding

- 1. IIST projects
- 2. IIST-ISRO
- 3. IIST-Fast Track research projects

Faculty members shall submit the project proposal to the Research Council wihich will be reviewed by expert committees for approval and funding. The progress of the projects will be periodically reviewed by expert committees headed by Dean R&D.

An advanced Space Research Group (ASRG) headed by Chief Technology Officer has been established for all collaborative research activities of IIST with ISRO. ASRG ensures smooth coordination and

oversees effective implementation of IIST-ISRO projects. An empowered overseeing committee comprising members from all the research centres of ISRO is the apex body which realises the coordination and implementation of the projects in the concerned centres.

IIST also ensures protection of intellectual property created by its students/faculty and staff. Towards this IPR cell is established to fulfil Institute's commitment to endorse academic freedom and provide a conducive environment for research, innovation and advancement. Well defined policies are in place and IPR cell guides and process the applications filed by the students/faculty/staff for IPR protection.

Links: https://www.iist.ac.in/research/research-focus

https://www.iist.ac.in/research/research-council

https://www.iist.ac.in/research/research-pgm

https://www.iist.ac.in/innovation/asrg-vision

https://events.iist.ac.in/iprcell/

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 3.1.2 - The institution provides seed money to its teachers for research (amount INR in Lakhs)

### 380000

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.1.3 - Number of teachers receiving national/international fellowship/financial support by various agencies for advanced studies/ research during the year

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 3.1.4 - Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the year

58

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	View File

# 3.1.5 - Institution has the following facilities to support research Central Instrumentation Centre Animal House/Green House Museum Media laboratory/Studios Business Lab Research/Statistical Databases Moot court Theatre Art Gallery

A. Any 4 or more of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 3.1.6 - Number of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by national and international agencies during the year

7

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.2 - Resource Mobilization for Research

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

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	No File Uploaded

### 3.2.2 - Grants for research projects sponsored by the government agencies during the year (INR in Lakhs)

#### 58424092

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

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

55

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.3 - Innovation Ecosystem

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

For protecting the intellectual property created by faculty/staff/students, IIST has established IPR cell. With well defined policies and procedures, the cell guides and process the applications submitted by faculty/students/staff for obtaining IPR protection such as patents and copyrights.

With a mission to foster the spirit of innovation and mould successful enterprenurs, IIST has established Space Technology Innovation and Incubation Centre(STIIC) in the campus. STIIC promotes (i) Innovation and enterprenurship by converting and translating technology ideas (ii) transitions of results in various disciplines of science and engineering into products, processes and services for commercial exploitation (ii) integrating teaching, learning, research and innovation with real

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world needs and (iii) efforts to accelerate our nation's ability to innovate and lead a knowledge driven economy for the larger benefit of humanity.

STIIC provides the incubatees, physical, technical and networking supports and services to assist product innovations and development. The activities of STIIC is monitored by IPR cell and ICMC.

Links: https://events.iist.ac.in/iprcell/

https://events.iist.ac.in/iprcell/incubation.html

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 3.3.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill Development during the year

Nil

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

9

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## ${\bf 3.3.3-Number\ of\ awards\ /\ recognitions\ received\ for\ research/innovations\ by\ the\ institution/teachers/research\ scholars/students\ during\ the\ year}$

## 3.3.3.1 - Total number of awards / recognitions received for research/innovations won by institution/teachers/research scholars/students year wise during the year

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.4 - Research Publications and Awards

### 3.4.1 - The institution ensures implementation of its stated Code of Ethics for research

- 3.4.1.1 The institution has a stated Code of Ethics for research and the implementation of which is ensured through the following
- A. All of the above
- 1. Inclusion of research ethics in the research methodology course work
- 2. Presence of institutional Ethics committees (Animal, chemical, bioethics etc)
- 3. Plagiarism check
- 4. Research Advisory Committee

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

### A. All of the above

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.4.3 - Number of Patents published/awarded during the year

### 3.4.3.1 - Total number of Patents published/awarded year wise during the year

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.4.4 - Number of Ph.D's awarded per teacher during the year

### 3.4.4.1 - How many Ph.D's are awarded during the year

13

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 3.4.5 - Number of research papers per teacher in the Journals notified on UGC website during the year

### 243

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 3.4.6 - Number of books and chapters in edited volumes published per teacher during the year

## 3.4.6.1 - Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings during the year

55

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

# 3.4.7 - E-content is developed by teachers For D. Any 2 of the above e-PG-Pathshala For CEC (Under Graduate) For SWAYAM For other MOOCs platform For NPTEL/NMEICT/any other Government Initiatives For Institutional LMS

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 3.4.8 - Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed

Scopus	Web of Science
Nil	207

File Description	Documents
Any additional information	<u>View File</u>
Bibliometrics of the publications during the year	<u>View File</u>

## 3.4.9 - Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University

Scopus	Web of Science
Nil	11

File Description	Documents
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	<u>View File</u>
Any additional information	<u>View File</u>

### 3.5 - Consultancy

- 3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual and encourages its faculty to undertake consultancy
  - In line with the expanding entrepreneurial ecosystem within the country, IIST has established Space Technology Innovation and Incubation Centre (STIIC) in its campus. Through STIIC, IIST strives to achieve the mission to foster the spirit of innovation and act as a pedestal to assist knowledge driven enterprises to establish and prosper under systematized scientific guidance and thereby mould successful entrepreneurs.
  - Space Technology Innovation and Incubation Center (STIIC) aims to promote
  - (i) innovation and entrepreneurship by converting and translating technology ideas
  - (ii) translation of results in various disciplines of science and engineering into products, processes and

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services for commercial exploitation

- (iii) integrating teaching, learning, research, and innovation with real-world needs, and
- (iv) to accelerate our nation's ability to innovate and lead a knowledge-driven economy for the larger benefit of humanity.
- While the emphasis of the STIIC is on Space related innovations/technologies, it covers all areas of science and technology in harmony with the Nation's interest.
- The activities of STIIC are formulated, streamlined, guided, supported, and monitored by STIIC Establishment and Operational task team and the IPR and Incubation Cell Monitoring Committee. Currently, one company VASHISHTHA RESEARCH Pvt Ltd is incubated within STIIC and several applications are under different stages of Pre-incubation/ review.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 3.5.2 - Revenue generated from consultancy and corporate training during the year (INR in Lakhs)

## 3.5.2.1 - Total amount generated from consultancy and corporate training during the year (INR in lakhs)

### 4725000

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.6 - Extension Activities

3.6.1 - Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the year

Due to the Covid-19 pandemic, students were not present in the campus during the period. However, as part of Swachhta Pakhwada 2021 the following activities were organised.

Hygiene kits were prepared in cloth bags with IIST logo and name for distribution to orphanages. Mask and sanitary napkins were included in the kits for girls and masks for boys. Wall mountable Pedal Sanitary dispensers which were fabricated in IIST along with dispenser bottle were also supplied to each orphanage.

This helped the stake holders to understand the importance ensuring hygienic practises in every day life as well as during the peculiar circumstance of the pandemic.

Other programmes like Ask an Astronomer, Astronomy school and GIS day celebrations helped the young students to get an exposure to applications of Space science and assisted to inculcate scientific temperament.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

- 3.6.2 Number of awards received by the Institution, its teachers and students from Government /Government recognised bodies in recognition of the extension activities carried out during the year
- 3.6.2.1 Total number of awards and recognition received for extension activities from Government / Government recognised bodies during the year

0

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	No File Uploaded

3.6.3 - Number of extension and outreach programs conducted by the institution including those through NSS/NCC/Red cross/YRC during the year(including Government initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs)

5

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 3.6.4 - Total number of students participating in extension activities listed at 3.6.3 above during the year

### 375

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.7 - Collaboration

- 3.7.1 Number of collaborative activities with other institutions/ research establishment/industry for research and academic development of faculty and students during the year
- 3.7.1.1 Total number of Collaborative activities with other institutions/ research establishment/industry for research and academic development of faculty and students during the year

15

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 3.7.2 - Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the year

9

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 - Physical Facilities

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

Institute has adequate facilities for teaching-learning. There are 29 classrooms, and 26 of them have LCD facilities. The institute has four academic blocks: Aerospace, Avionics, Science, and

Interdisciplinary blocks. The aerospace engineering department has 17 major laboratories. The manufacturing processes lab and Engineering workshop under the aerospace engineering department effectively supports many of the project and research-related activities in IIST, encompassing all the departments in IIST. Department of avionics has 14 UG laboratories and 16 PG and research laboratories. Many postgraduate laboratories in the department have also been equipped to support advanced research activities across various disciplines. There are eight major laboratories in the department of chemistry. Department of Earth and Space Sciences has four laboratories. Department of Humanities has two labs: Audio-Visual Lab and Language Lab. The programming lab, and Machine Learning and Computing Labs are part of the mathematics department. There are 11 laboratories in the department of physics. Advanced Propulsion and Laser Diagnostic Lab, Computer Vision and Virtual Reality Lab, Centre of Advance Research in Nanoscience and Technology, Small-spacecraft Systems and Payload Centre, NEMS, and Opto-Nanoelectronics. IIST has developed an infrastructure in the interdisciplinary block for the Multidisciplinary Computing Centre to host parallel computing clusters, servers, and workstations.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

The Institute has adequate facilities for games both outdoor and indoor games. The Institute has a 110 meter square open ground for field events, football, and cricket, established in its complete form in 2018. In addition, there is an outdoor basketball court, volleyball court, a net bowling facility for cricket, and an outdoor gym facility. The indoor recreational facilities are contained in the student activities center. The students activity center was rendered functional in 2019-2020. There is a gymnasium, a pair of badminton courts, and a squash court. The gymnasium is housed in an area of 236 square meters, the badminton courts in an area of 545 square meters, and the squash court in an area of 85 square meters. There is also a recreational hall to house games such as chess, carrom, table tennis, and carrom. The recreational hall has an area of 315 square meters. Table tennis facilities are also available in the academic blocks. The student activities center also has an open-air auditorium to host cultural activities, yoga, and Dhanak, the cultural fest of the Institute.

The open-air auditorium can readily accommodate more than 500 people. The Institute also has a dedicated music club. Various musical instruments such as keyboard, guitars, violins, drums, and flutes, are provided by the Institute for general use.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

In order to make campus life more comfortable, IIST has created many facilities on the campus. IIST houses two indoor badminton courts for training and practice and two other badminton courts for leisure playing. The basketball facility with floodlight, two volleyball courts, cricket net practice facility and tracks for conducting athletic events are a few other sports facilities available on the campus. The tech fest Conscientia, and the cultural fest Dhanak of the Institute, is facilitated by this committee. The Students' Activities Center (SAC) caters to these requirements.

A branch of Union Bank of India and ATM service is available on the campus. A well-equipped canteen caters to the daily food requirements of students and staff. A privately run cafeteria operates on the campus till midnight, providing vegetarian and non-vegetarian food. The campus has two artificially created ponds, which keep the water table stable. There is also a water recycling plant.

The campus is differently-abled friendly and provides additional facilities as and when required for the differently-abled students.

The Medical Facility of IIST is functional round the clock with the support of doctors and paramedical staff. The Institute also employs a full-time counsellor to guide students and staff of the Institute to achieve their goals.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 4.1.4 - Total expenditure excluding salary for infrastructure augmentation during the year (INR in Lakhs)

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### 1055.16

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 4.2 - Library as a Learning Resource

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

Library was automated since the inception by using the Koha - an open source ILMS. The automation was done in full-fledged manner with all functional modules. All library operations, such as acquisition, periodical control, circulation, OPAC etc were done using the different modules of the software. Recently, the software has been upgraded to the latest stable version (V. 20.11.06.000) which is having more advanced features.

Library has two multi-functional high end printing cum scanner machines (one black and white and one colour) for scanning various types of documents for digitisation. A table top scanner is also available for scanning purpose. A new high end machine with scanning (black and white, colour) facility added in January 2021. In addition, most of the institute publications such as annual reports, newsletters, conference proceedings, convocation speeches, workshop materials etc are prepared in the Graphic Design Facility of the library. Graphic Design Facility acts as an important source for digital forms of the documents.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

4.2.2 - Institution has subscription for e-Library resources Library has regular subscription for the following: e – journals ebooks e-ShodhSindhu Shodhganga Databases A. Any 4 or all of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 4.2.3 - Annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the year (INR in Lakhs)

### 201.77

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 4.2.4 - Number of usage of library by teachers and students per day (foot falls and login data for online access)

### 1107

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 4.3 - IT Infrastructure

## 4.3.1 - Number of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities during the year

### 29

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

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

### Salient Features of IT Policy

- Usage of information technology and its infrastructure and services of the institution are broadly governed in compliance with the IT policies of the Dept. of Space, Govt. of India.
- The institution has also adopted and implemented IT usage policies that facilitates a safe and stable IT eco-system for all its students and members of faculty and staff. This is in consideration of the institution being a fullyresidential higher education and research institution, and

- also a 'deemed-to-be university' bound by guidelines of the UGC, Govt.of India.
- The institution offers privileged access to its students and members of faculty and staff for the use of institution's computers in order to learn and communicate and share information and digital resources within and outside the institution through the institution's campus-network and space-network.
- Usage through the campus-network facilitates access to IT services and computing resources using the institution's own computers as well as in 'bring-your-own-devices' (BYOD) of students and members of faculty and staff, round the clock. Users are segregated and assigned under different local area networks(LANs) and wireless networks(WLANs) for academic areas, research areas, administrative areas and residential areas, based on privileges assigned.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 4.3.3 - Student - Computer ratio during the year

	Number of Computers available to students for academic purposes
3	2

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

• ?1 GBPS

File Description	Documents
Upload relevant supporting document	<u>View File</u>

# 4.3.5 - Institution has the following Facilities for e-content development Media centre Audio visual centre Lecture Capturing System(LCS) Mixing equipment's and softwares for editing

A. All of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Upload the data template	<u>View File</u>

### 4.4 - Maintenance of Campus Infrastructure

## 4.4.1 - Total expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the year

### 4143.94

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

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

The institute has well-organized mechanisms for the maintenance and utilization of its facilities. The physical assets of the Institute, such as the buildings, classrooms, electrical power, air condition and landscaping, are all maintained by the Construction and Maintenance Division (CMD) Section. The transport department caters to running and maintaining buses, conveyance light vehicles, and ambulance services. The Purchase and Stores Section takes care of purchase and making inventory by following the approved standard procedures. Library staff manages acquisition of print and electronic resources for the academic and research needs of the academic community. Library also acts as the central reprographic / printing / binding facility. Computer Systems Group manages and maintains computer systems, networking, and related electronic infrastructure in IIST for provisioning and facilitating IT and non-IT services for the Institute.

The classrooms, furniture, seminar halls, and other associated accessories such as projectors, etc., are all attached to the respective academic department heads. The laboratories attached to each department come under an identified faculty coordinator/in charge in the department. Lab assistants and lab technicians assist them.

A food and canteen committee constituted of faculty, students, and the canteen head addresses various food-related details such as the menu, mess timings, etc.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### STUDENT SUPPORT AND PROGRESSION

#### 5.1 - Student Support

5.1.1 - Total number of students benefited by scholarships and free ships provided by the institution, Government and non-government agencies (NGOs) during the year (other than the students receiving scholarships under the government schemes for reserved categories)

620

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 5.1.2 - Total number of students benefited by career counselling and guidance for competitive examinations offered by the Institution during the year

0

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	<u>View File</u>

5.1.3 - Following Capacity development and skills enhancement initiatives are taken by the institution Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) Awareness of trends in technology

A. All of the above

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

5.1.4 - The Institution adopts the following for redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organisation wide awareness and undertakings on policies with zero tolerance Mechanisms for

• All of the above

# submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### **5.2 - Student Progression**

## 5.2.1 - Number of students qualifying in state/ national/ international level examinations during the year (eg:NET/SLET/GATE/GMAT/CAT/ GRE/TOEFL/Civil Services/State government examinations)

# 5.2.1.1 - Number of students who qualified in state/ national/ international examinations (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year

5

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 5.2.2 - Total number of placement of outgoing students during the year

#### 107

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 5.2.3 - Number of recently graduated students who have progressed to higher education (previous graduating batch) during the year

20

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 5.3 - Student Participation and Activities

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

0

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	No File Uploaded

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

An active Student Activity Board (SAB) serves as the voice for the entire student community of IIST. The Student Activity Board headed by Dean Student Activities of IIST has the participation of faculty members and students and actively works to promote a better learning environment within the institute. It oversees all activities of students through various committees and clubs, which help share student ideas, interests and concerns with the management of IIST. SAB gives students an opportunity to develop their leadership skills by organizing and carrying out several activities and service projects. The students organize and manage several programmes every year, of which, some of the most notable are an inter-collegiate cultural festival named "Dhanak", an intercollegiate technological festival named "Conscientia", MUN, an intra-collegiate fest known as Konchords etc. These events provide a platform for the students to showcase their talents and creativity both in the cultural as well as in the technological domains as well as to fine tune their skills and leadership qualities. All such fests are planned, implemented, monitored and evaluated by the students with the help of faculty members

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 5.3.3 - Number of sports and cultural events / competitions organised by the institution during the year

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	No File Uploaded

#### 5.4 - Alumni Engagement

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

Interactive career quidance sessions for students with a focus on careers within ISRO, beyond ISRO, and entrepreneurial aspects have been conducted garnering good responses. Interactions with the Placement cell were held to understand the requirements and discover ways to extend support to the placement cell. In collaboration with Vaave and IIST Students, a Student Alumni Relationship Cell (SARC) was formed which is a student-led team and assists both IIST Alumni Association and IIST in building and strengthening alumni & student networks. Sessions emphasizing on the opportunities for higher studies and sharing of first-hand entrepreneurial experiences have been beneficial to improving alumni networks and seeking guidance. Lecture series and webinars for an audience with a specific set of interests, these sessions have been able to bring together alumni and students from different batches having similar interests with an aim to improve connectedness across different batches. Outreach programs related to Art & Science were organized for engagement with alumni & the student community and the general public. The podcast series initiated in collaboration with the Sounding Rocket Team (TSR) IIST brought short conversations with scientific researchers closer home, from across the country, and around the globe to the IIST community.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 5.4.2 - Alumni contribution during the year C. 3 Lakhs - 4Lakhs (INR in Lakhs)

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### GOVERNANCE, LEADERSHIP AND MANAGEMENT

#### 6.1 - Institutional Vision and Leadership

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

The academic programmes in IIST have been envisioned to strengthen the fundamentals, experience the realities through practical work, and enhance the knowledge and understanding in the areas relevant to the Aerospace sector. The institute provides an academic perspective to the activities of ISRO by retaining a symbiotic relationship through several sponsored projects, planning and review processes. The students of the Institute get several opportunities of internships and employment at various centres of ISRO. The Institute is focused on strong interdisciplinary and collaborative work both within the various departments and across the various centres of ISRO, which will help to generate excellent technologies responding to the need of local, national and global interest. IIST envisages to be a global leader in the areas of science and technology related to Aerospace sector in the days to come by capacity buildingin terms of infrastructure and human capital. IIST also has a number of international collaborations, both as MOU at the level of the institute and faculty-to-faculty collaboration.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

The leadership of our institute helped us to make suitable decisions to tide over theunpredictable situation. Even during the difficult Covid pandemic period, the institute could complete someof the infrastructure projects and contribute significantly to the research activities.

IIST continued its good position in the NIRF ranking in the current year as well at 40th position in the engineering category.

We have several collaborative projects with ISRO centres and the Advanced SpaceResearch Group (ASRG) is spearheading the development of the systems necessary forbringing the institute closer to the ISRO centres in a mutually beneficial way.

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The institute wishes to charter a new path of growth by harvesting the benefits of theacademic foundations and research. It would be imperative for us to augment thecapacity building in terms of infrastructure and human capital to strive towards aworld class institution of higher learning. We also look forward to the opening -up of the space sector and yearn to play a much bigger role in the future and hope to gainthe status of the Institute of National Importance soon.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 6.2 - Strategy Development and Deployment

#### 6.2.1 - The institutional Strategic plan is effectively deployed

The Institute recognizes the importance of research in developing futuretechnologies and applications of space research. IIST encourages all its facultymembers to quide and supervise young scholars for the PhD programme as well asfor Post-Doctoral programmes. The major theme of our research portfolio is theapplication of cutting - edge science to generate new technology. The style ofresearch in IIST is both theoretical as well as richly experimental, and the institutehas set up state-ofthe-art facilities in all departments to support its researchactivities. The Institute is focused on strong interdisciplinary and collaborativework both within the various departments and across the various centres of ISRO, which will help to generate excellent technologies responding to the need of local, national and global interest. IIST envisages to be a global leader in the areas ofscience and technology related to Aerospace sector in the days to come by capacity building in terms of infrastructure and human capital. IIST also has anumber of international collaborations, both as MOU at the level of institute and faculty-to-faculty collaboration.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

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IIST was started keeping in mind the need for high quality manpower for the Indian Space Research Organization, one of world's leading scientific organizations engaged in space research and space applications. For the efficient and effective functioning of the institute a clear leadership and organization is ensured through an organization structure comprised of Chancellor, Director, Governing Council, Academic Council, Research Council, Deans of institute, Heads of Departments, Board of Management, Registrar, Administration, etc. The Director provides overall guidance to academic programs and also takes strategic administrative decisions of the institute. The director sets up necessary committees to conduct academic programsand get the administrative activities done. The Academics section of the institute is headed by Dean (Academics). This section undertakes all decisions related to admission of students, preparing the academic calendar, the conduct of exams, publishing of results, convocation-related activities, etc. Dean (R&D) is responsible for Research and Development activities at the institute level. Faculty members coming up with project proposals are discussed here. IIST Research Board is formed toenable, promote and nurture the innovative research activity meeting the requirements and challenges of the Indian Space Programme. Research Council (RC), constituted by the Director, IIST, has the mandate to have oversight (monitoring) on research progress and other academic matters of the Research scholars. All such relevant papers will be routed through Dean (R & D) who is the Chairperson of the RC.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 6.2.3 - Institution Implements e-governance in its areas of operations

### 6.2.3.1 - e-governance is implemented covering following areas of operation

A. All of the above

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

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 6.3 - Faculty Empowerment Strategies

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

IIST follows the Merit Promotion Scheme (MPS) of Department of Space wherein the individual will be promoted to the next higher grade after the pre-defined residency by the virtue of individual excellence without any reference to vacancies. The residency period defined (and modified from time to time) by Department of Space for ISRO Scientists/Engineers is followed in the Institute. Like Faculty, the Non-Faculty (Technical) are also be governed by MPS prevalent/followed in ISRO for its scientific/ technical staff other than Scientist/Engineers.

IIST Medical Scheme, which is akin to the Contributory Health Service Scheme (CHSS) of the Government is given to permanent employees of IIST and is applicable to all the employees of the Institute and members of their families, wholly dependent and normally residing with them. Intranet site: http://172.20.10.126/STAFF/circulars/IIST BYE-LAW.pdf

SAFE (Scheme for Assistance to Families in Exigency) is Vikram A. Sarabhai Trust(VAST) as a welfare measure for the DOS/ISRO community. The beneficiaries are the employees who opt to join this scheme and optionally, their family members. VAST Insurance Scheme Whenever Accident Strikes a voluntary and contributory welfare scheme to provide risk coverage for "Death due to Accidents" - anytime and anywhere in the world. (website: http://staff.iist.ac.in/vast/)

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 6.3.2 - Total number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 6.3.3 - Number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the year

#### 12

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

# 6.3.4 - Total number of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the year(Professional Development Programmes, Orientation / Induction Programmes Refresher Course, Short Term Course)

#### 22

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 6.4 - Financial Management and Resource Mobilization

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

The Institute's primary and majority funding is from the Department of Space in the form of Grant in Aid for meeting Capital, General and Salary expenditure. Additionally, the Institute charges fees from the students.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

# 6.4.3 - Funds / Grants received from non-government bodies, individuals, philanthropists during the year for development and maintenance of infrastructure (not covered under Criteria III and V)(INR in Lakhs)

0

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	No File Uploaded

6.4.4 - Institution conducts internal and external financial audits regularly

A. Statutory Audit - is carried out on a yearly basis by CAG empanelled Chartered Accountants. Financial statements are certified by Chartered Accountants and financial compliance is ensured. B. Internal Audit - is carried out by the Department of Space on a regular basis. Procedural compliances in finance, purchase and administrative areas are reviewed. Audit objections raised C. CAG Audit - is carried out very few years with emphasis on propriety and efficiency Audit objections raised are clarified and corrective measures adopted. Audited Financial Statements are uploaded on the Institute website.

The link for the statement for the year 2020-21 is given below :- https://www.iist.ac.in/sites/default/files/library/Annual%20Report %202020-%2021%20-%20Final%20with%20Audit%202,12,21%20-%205%20PM\_compressed.pdf

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 6.5 - Internal Quality Assurance System

- 6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes by constantly reviewing the teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals
- 1. Due to Covid 19 pandemic, the classes were conducted through Learning Management Systems (LMS) and online platform.
- 2. As the classes were conducted through online, the evaluation weightages for the various components of the theory courses were changed from 15 marks for each of the two quizzes and 50 marks for the end semester examination to 20 marks for each of the two

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quizzes and 40 marks for the end semester examination. The component of 20 marks weightage for the Tecahers Assessment, however remained the same. The duration of the end semester examination, however was reduced to 2 hours for the online exam from 3 hours.

- 3. As the examination was conducted in online mode, the students were given adequate and additional uploading time over and above the regular online duration.
- 4. Due to delay in the conduct and declaration of JEE (Advanced) Examination 2020, the first year UG classes for the academic session 2020-21 could commence only by last week of November 2020. Keeping in mind the need for the first year UG students who joined in 2020-21 to be aligned with their seniors after one year, the institute decided to conduct 6 days week online classes (including classes on Saturday morning sessions) instead of the usual 5 day week to compensate and make up for the late commencement of first year UG classes.
- 5. PhD viva-voce examinations were conducted online and hence physical presence of student/expert member/ others were avoided.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

6.5.2 - Institution has adopted the following for Quality assurance Academic Administrative Audit (AAA) and follow up action taken Conferences, Seminars, Workshops on quality conducted Collaborative quality initiatives with other institution(s) Orientation programme on quality issues for teachers and studens Participation in NIRF Any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

E. Any lof the above

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting documnent	<u>View File</u>

- 6.5.3 Incremental improvements made for the preceding during the year with regard to quality (in case of first cycle) Post accreditation quality initiatives(second and subsequent cycles)
- 1. Due to Covid-19 pandemic situation, it was decided to have all lab exams, viva voce and seminar evaluations for this academic year using online mode only
- 2. Due to Covid-19 pandemic situation it was decided to have PhD defence/PhD Viva from March 2020 onwards using

#### online mode only

- 3. Due to Covid 19 pandemic situation it was decided to award the grades for all the courses for the even semester 2019-2020 academic year based on Quiz I (15 marks) and internal assessment (25 marks). This was based on the approach adopted by most IITs due to inherent difficulties faced by most institutions in implementing LMS moodle seamlessly for online examination during the beginning of the pandemic situation.
- 4. Due to Covid-19 pandemic situation and the attendant national lockdown as well as the intermittent state level lockdown, the institute moved completely from the offline mode of teaching to the online mode of teaching. Furthermore, with students no longer in the campus, the offline exams (mid-term Quizzes and end semester examinations) were changed to online examinations using LMS Moodle. For each exam room having about 25 students, one faculty and one tutor were designated to invigilate and oversee smooth conduct of the online examination. A LMS committee was constituted that ensured seamless and smooth conduct of the online examination.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### INSTITUTIONAL VALUES AND BEST PRACTICES

#### 7.1 - Institutional Values and Social Responsibilities

- 7.1.1 Measures initiated by the Institution for the promotion of gender equity during the year
  - A gender sensitization committee with representatives from both gender is active in IIST
  - Womens day Celebration at IIST was celebrated in online mode on 31st March 2021. Chief Guest for the function was Smt Mangala Mani, Scientist / Engineer at NRSC and a member of

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- the 36th Indian Expedition Team to Antarctica. Her talk titled "Choose to Challenge" was highly motivational and sensitized the women in IIST
- In view of the pandemic Medical Check-up camp was organized in phased manner for the women staff working in contract basis in IIST. Two Live sessions on Personal Health and Hygiene by IIST Medical Officer were also organized for the house keeping ladies in IIST.

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Annual gender sensitization action plan(s)	Nil
Specific facilities provided for women in terms of: a. Safety and security b. Counseling c. Common rooms d. Daycare Centre e. Any other relevant information	a. Safety and security The campus is under the security and monitoring of CISF. Each building has a janitor 24x7 hrs to inspect the activities inside the building and to whom the students can approach for any help. b. Counseling A full time counsellor available for the needs of women in the institute. The students can also place their grievances in Gender Sensitization committee, ICC or Grievance cell. Each students is also assigned to a mentor with senior students as buddy mentors c. Common rooms Separate wash rooms provided in all floors. Rest rooms for housekeeping ladies also identified in all buildings. Incinerators are made available in all floors of the ladies hostel to enable the easy disposal of sanitary pads. d. Daycare Centre NIL e. Any other relevant information https://www.iist.ac.in/library/annual#

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/power-efficient equipment

A. Any 4 or All of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system Hazardous chemicals and radioactive waste management

A no waste incinerator is maintained in the campus for proper waste disposal. Napkin Incinerators are also installed in all ladies hostel and one ladies toilet each in all academic buildings. A Bio Gas plant is operated and maintained by Canteen Services and the byproducts of biogas are used as fertilizer. A compost pit has been made where dry leaves are collected and disposed and is used for of gardening purpose. Food waste, plastic waste, paper waste collected separately and disposed. For collecting these, separate dust bins are provided in each floors of all buildings. The campus has banned the use of plastic. Still it comes to the campus along with some purchases by the students staying in hostels. Plastic bottles, disposed by students are reused for planting. As part of Green Kerala Mission policy, the plastic waste generated in the campus are also disposed through Haritha Karma Sena, an authorized/registered recycler. Paper waste generated is shredded using Paper Shredders within the campus and disposed through authorised recyclers. Water treatment plants are installed inside the campus for recycling used water which is later used for gardening purpose. Since the campus is relatively new, E- waste generated is almost nil.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

# 7.1.4 - Water conservation facilities available A. Any 4 or all of the above in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 7.1.5 - Green campus initiatives include

### 7.1.5.1 - The institutional initiatives for greening the campus are as follows:

- A. Any 4 or All of the above
- 1. Restricted entry of automobiles
- 2. Use of bicycles/ Battery-powered vehicles
- 3. Pedestrian-friendly pathways
- 4. Ban on use of plastic
- 5. Landscaping

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution

7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following:

C. Any 2 of the above

- 1. Green audit
- 2. Energy audit
- 3. Environment audit
- 4. Clean and green campus recognitions/awards
- **5.** Beyond the campus environmental promotional activities

File Description	Documents
Upload relevant supporting document	<u>View File</u>

7.1.7 - The Institution has a disabled-friendly and barrier-free environment Ramps/lifts for easy access to classrooms and centres. Disabled-friendly washrooms Signage including tactile path lights, display boards and signposts Assistive technology and facilities for persons with disabilities: accessible website, screen-reading software, mechanized equipment, etc. Provision for enquiry and information: Human assistance, reader, scribe, soft copies

C. Any 2 of the above

#### of reading materials, screen reading, etc.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words)

Hygiene kits were prepared in cloth bags with IIST logo and name for distribution to orphanages. Mask and sanitary napkins were included in the kits. Wall mountable Pedal Sanitary dispenser which was fabricated in IIST along with dispenser bottle were also supplied to each orphanage. 10 litres each of sanitizer prepared by Department of Chemistry, IIST was also supplied to the orphanages.

In view of the pandemic two Live sessions on Personal Health and Hygiene by IIST Medical Officer were organized for the cleaning staff in IIST.

Medical Check-up Medical Check-up camp was organized in phased manner for the women staff working in contract basis in IIST

The institute is following disabled inclusive measures. Buildings have disabled access ramp, lifts, accessible toilets etc., for the convenience of persons with reduced mobility. All the academic blocks, Administrative building and Library are provided with ramp and lifts and toilet for Divyang people. Student Activity Centre, Hostels and mess building are also provided with accessible toilets and ramps.

IIST has organized a new edition of IIST@Shcools program named "Beyond the Horizon" from 3rd to 7th August 2020 in collaboration with Sargakshetra Academy & Charitable Centre. The program was aimed to create awareness about space science & technology and to instill scientific temper among the school children of government schools. The programe was organized in the webinar mode for the school students of 10th to 12th standard from all over the state.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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- 7.1.9 Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens:
  - Constitution Day was celebrated on 26th November 2020 in IIST to commemorate the adoption of the Indian Constitution. Dr V K Dadhwal, Director, unveiled the 'Preamble Wall' that has been set up in the Library and a talk was delivered by Dr Gopa Kumar on Constitution and Constitutionalism, which helped to instil the Essence and Spirit of Indian Constitution"
  - Induction Program which include a program on The Happiness Quotient with 7 or 8 sessions that help the students to start their B.Tech. journey on the best note. Sessions include a mix of yoga for toning the body, meditations to improve concentration, breath-work to enhance immunity and lung capacity, ice-breakers & sessions on values of life
  - The courses offered by the Humanities department such as Introduction to Social Science and Ethics and Economics cover several aspects of rights, duties and responsibilities of citizens.
  - Independence Day and Republic Day were celebrated with all dignity and fervour which helped in inculcating the values of harmony, to commemorate the valour and spirit of the freedom fighters who fought for the independence and to Celebrate the Spirit of Freedom
  - Swachhta Pakhwada 2021 in IIST was organized from 1st to 15th February 2021wth several events which helped to fulfil Mahatma Gandhi's dream of a clean and hygienic society and country.

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff Annual awareness programmes on Code of Conduct are organized

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File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

The pandemic put a lock to many activities in the institute. Still many of the important days were celebrated following all covid protocols.

- Constitution Day was celebrated on 26th November 2020 in IIST to commemorate the adoption of the Indian Constitution. Dr V K Dadhwal, Director, unveiled the 'Preamble Wall' that has been set up in the Library and a talk was delivered by Dr Gopa Kumar on Constitution and Constitutionalism, which helped to instil the Essence and Spirit of Indian Constitution.
- Swachhta Pakhwada 2021 in IIST was organized from 1st to 15th February 2021wth several events.
- International GIS Day is celebrated in 3rd week of November. At IIST, this year GIS Day 2020 was celebrated with a Special Lecture by Dr V K Dadhwal, Director, IIST on 'Growth, Trend and Challenges of Geospatial Tools and Techniques.
- IIST celebrated Independence day 2020 and Republic day 2021 in a contained manner due to the pandemic situation but with all the respect and fervor demanded for the occasion.
- Ministry of Ayurveda, Yoga and Naturopathy and Department of Space had communicated plans to observe International Day of Yoga in a non-congregative manner on 21.6.2020. Students, faculty, staff and family members joined thousands of others from their respective homes by doing the 45 minute long
- Common Yoga Protocol (CYP) drill on 21.6.2020, by observing Covid-19 protocols.

#### Part B

#### **CURRICULAR ASPECTS**

#### 1.1 - Curriculum Design and Development

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

The institute initiated the process of implementing Programme outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the Programmes offered by departments from the academic year 2021-22.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 1.1.2 - Number of Programmes where syllabus revision was carried out during the year

1

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

- 1.1.3 Total number of courses having focus on employability/ entrepreneurship/ skill development offered by the University during the year
- 1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development during the year

14

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 1.2 - Academic Flexibility

1.2.1 - Number of new courses introduced of the total number of courses across all programs offered during the year

3

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 1.2.2 - Number of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented during the year

2

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 1.3 - Curriculum Enrichment

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

Many papers offered by the institute such as Introduction to Economics, Social Science and Ethics, Principles of Management cover several aspects related to Gender, issues faced by women, children, Transgenders, disabled, marginalized and also covers values related to personal and professional life. Sustainable development and environmental management is also discussed in many of the papers. The projects and the Tribal visits undertaken by the Humanities department where students tries to collect empirical data from the society also helps them to understand the issues faced by different groups of people in society. This helps to develop scientists with a humane and social concern.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 1.3.2 - Number of value-added courses for imparting transferable and life skills offered during the year

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 1.3.3 - Total number of students enrolled in the courses under 1.3.2 above

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

74

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 1.3.4 - Number of students undertaking field projects / research projects / internships during the year

197

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 1.4 - Feedback System

1.4.1 - Structured feedback for design and
review of syllabus – semester wise / is
received from Students Teachers
Employers Alumni

• Any 1 of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 1.4.2 - Feedback processes of the institution may be classified as follows • Feedback collected, analysed and action has been taken

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### TEACHING-LEARNING AND EVALUATION

#### 2.1 - Student Enrollment and Profile

#### 2.1.1 - Demand Ratio

#### 2.1.1.1 - Number of seats available during the year

310

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 2.1.2 - Total number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the year (Excluding Supernumerary Seats)

#### 2.1.2.1 - Number of actual students admitted from the reserved categories during the year

#### 145

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 2.2 - Catering to Student Diversity

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

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

Write description in maximum of 200 words

Continuous assessment forms 50% of the assessment in each course, while an end semester examination contributes for the remaining 50% (In the pandemic period the institute has been following a 60-40 model). The continuous assessment typically consists of two quizzes (15% each), and another 20% made up by way of assignments and class tests. A Class Committee (consisting of all course instructors and student representatives) meets in the middle of the semester for each

batch of students assess the progress, and address any concerns by way of corrective measures. Advanced learners, based on their CGPA, are permitted to Audit up to two courses during the entire duration of the programme. Underperformers, have the option of appearing in a supplementary examination that is conducted within a month of publication of the results. Under performers in the first year are offered summer and winter courses, a short set of lectures, to aid them before the supplementary examination is conducted.

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Link For Additional Information	Nil

#### 2.2.2 - Student - Full time teacher ratio during the year

Number of Students	Number of Teachers
794	102

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 2.3 - Teaching-Learning Process

2.3.1 - Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences

Where ever possible and necessary, a lab course is offered to complement the theory course. Some courses are tagged along with limited time projects, and certain long term projects that are already running in the institute, such as satellite development, instrumentation, etc. Several theory courses also follow a 3-1-0-(L-T-P) model, wherein three theory lectures in a week are supplemented by a tutorial hour that contributes to the total credits.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 2.3.2 - Teachers use ICT enabled tools including online resources for effective teaching and learning processes during the year

The institute is equipped with 4 smart class rooms with interactive screens. Institute also has an active subscription to Microsoft's Office-365 that covers all students and faculty. Besides, Moodle is significantly used in the conduct of class tests, assignments, and for uploading other study material. We also have a subscription (covering all students, researchers and faculty) to several scientific software (Matlab, Mathematica, Maple, Synopsis, CAMSOL, etc.) to aid in the learning process.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 2.3.3 - Ratio of students to mentor for academic and other related issues during the year

#### 2.3.3.1 - Number of mentors

21

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 2.4 - Teacher Profile and Quality

#### 2.4.1 - Total Number of full time teachers against sanctioned posts during the year

123

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 2.4.2 - Total Number of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit. during the year

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 2.4.3 - Total teaching experience of full time teachers in the same institution during the year

#### 2.4.3.1 - Total experience of full-time teachers

#### 20686

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

# 2.4.4 - Total number of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the year

7

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 2.5 - Evaluation Process and Reforms

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

Nil

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

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 2.5.2 - Total number of student complaints/grievances about evaluation against total number appeared in the examinations during the year

0

File Description	Documents
Upload relevant supporting document	No File Uploaded

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

The institute uses a web based application "iCampus" for continuous assessment, exam management, and other related activities such as attendance management. In the academic year 2020-21, as a consequence of the pandemic, the courses were conducted online, including examinations, assignments and class tests, using a Moodle based software - 'LMS Moodle'. Results are also published online through iCampus. The iCampusportal handles the following activities: Registration, Attendance, and result processing. LMS - Moodle is usedfor the following - Complete interface as a course page: Uploading of course related material, submission of assignments, class tests, Quiz and Final examination. Monitoring of the online examinations were done using either Microsoft Teams or Zoom, while students login into LMS-Moodle to attend examinations and submit answer sheets.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

A. 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 2.6 - Student Performance and Learning Outcomes

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

The institute initiated the process of implementing Programme outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the Programmes offered by departments from the academic year 2021-22 only.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

2.6.2 - Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution during the year

The institute initiated the process of implementing Programme outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the Programmes offered by departments from the academic year 2021-22 only.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 2.6.3 - Number of students passed during the year

### 2.6.3.1 - Total number of final year students who passed the university examination during the year

223

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire) (results and details need to be provided as a web link)

https://www.iist.ac.in/iqac

#### RESEARCH, INNOVATIONS AND EXTENSION

#### 3.1 - Promotion of Research and Facilities

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

Research forms a significant part of the goals envisaged for this premier and unique institute. The main aim is to seamlessly integrate research and development with academics and encourage faculty members to carry on research in their respective areas of interest. Research in IIST is built on the foundations of various academic programmes run by the Departments of Aerospace Engineering, Avionics, Chemistry, Earth and Space Sciences, Humanities, Mathematics and Physics. The major theme of our research portfolio is the application of cutting - edge science to forge new technologies. The institute has set up state-of-the-art facilities in all departments to support its research activities. The Institute is focused on strong interdisciplinary and collaborative work both within the various departments and across the various centres of ISRO, which will help to create the next generation technologies that would address the needs of local, national and global requirements. IIST also appreciates the importance of research collaborations with reputed national/international academic and research organizations.

Ph.D programme in IIST commenced in the year 2010 with an objective to train and groom high quality manpower to support basic and applied research in science and technology to meet the R&D requirement of the country and Indian Space Programme in specific. Admission to Ph.D programme takes place in two sessions every year (January and July) and selection is through national level eligibility test (a valid UGC-CSIR-NET-JRF/Lectureship/fellowship or NBHM/JEST/GATE or screening test conducted by IIST) and an interview. Sixty nine Scholars have been awarded Ph.D degree so far and two hundred and five scholars are currently progressing with their doctoral research.

Research Council (RC) which is chaired by Dean (R & D) is a body that promotes and nurtures research activities and oversees research progress and other academic matters of the research scholars and the research projects. RC, while ensuring that the requirements and research challenges of space science and space technology are duly met, also reviews the rules and regulations periodically and recommends amendments, if any, to the Director, IIST.

IIST encourages faculty members to write research proposals for receiving external funding from Government as well as private funding agencies. Such project proposals will be reviewed, approved and forwarded by Dean R&D.

IIST also grants projects fully funded by the institute. Different schemes are available for project funding

- 1. IIST projects
- 2. IIST-ISRO
- 3. IIST-Fast Track research projects

Faculty members shall submit the project proposal to the Research Council wihich will be reviewed by expert committees for approval and funding. The progress of the projects will be periodically reviewed by expert committees headed by Dean R&D.

An advanced Space Research Group (ASRG) headed by Chief Technology Officer has been established for all collaborative research activities of IIST with ISRO. ASRG ensures smooth coordination and oversees effective implementation of IIST-ISRO projects. An empowered overseeing committee comprising members from all the research centres of ISRO is the apex body which realises the coordination and implementation of the projects in the concerned centres.

IIST also ensures protection of intellectual property created by its students/faculty and staff. Towards this IPR cell is established to fulfil Institute's commitment to endorse academic freedom and provide a conducive environment for research, innovation and advancement. Well defined policies are in place and IPR cell guides and process the applications filed by the students/faculty/staff for IPR protection.

Links: https://www.iist.ac.in/research/research-focus

https://www.iist.ac.in/research/research-council

https://www.iist.ac.in/research/research-pgm

https://www.iist.ac.in/innovation/asrg-vision

https://events.iist.ac.in/iprcell/

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 3.1.2 - The institution provides seed money to its teachers for research (amount INR in Lakhs)

#### 380000

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.1.3 - Number of teachers receiving national/international fellowship/financial support by various agencies for advanced studies/ research during the year

7

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.1.4 - Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the year

58

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

# 3.1.5 - Institution has the following facilities to support research Central Instrumentation Centre Animal House/Green House Museum Media laboratory/Studios Business Lab Research/Statistical Databases Moot court Theatre Art Gallery

#### A. Any 4 or more of the above

22-08-2022 01:59:16

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 3.1.6 - Number of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by national and international agencies during the year

7

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 3.2 - Resource Mobilization for Research

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

0

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	No File Uploaded

### 3.2.2 - Grants for research projects sponsored by the government agencies during the year (INR in Lakhs)

#### 58424092

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

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

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 3.3 - Innovation Ecosystem

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

For protecting the intellectual property created by faculty/staff/students, IIST has established IPR cell. With well defined policies and procedures, the cell guides and process the applications submitted by faculty/students/staff for obtaining IPR protection such as patents and copyrights.

With a mission to foster the spirit of innovation and mould successful enterprenurs, IIST has established Space Technology Innovation and Incubation Centre(STIIC) in the campus. STIIC promotes (i) Innovation and enterprenurship by converting and translating technology ideas (ii) transitions of results in various disciplines of science and engineering into products, processes and services for commercial exploitation (ii) integrating teaching, learning, research and innovation with real world needs and (iii) efforts to accelerate our nation's ability to innovate and lead a knowledge driven economy for the larger benefit of humanity.

STIIC provides the incubatees, physical, technical and networking supports and services to assist product innovations and development. The activities of STIIC is monitored by IPR cell and ICMC.

Links: https://events.iist.ac.in/iprcell/

https://events.iist.ac.in/iprcell/incubation.html

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 3.3.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill Development during the year

Nil

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

9

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

- 3.3.3 Number of awards / recognitions received for research/innovations by the institution/teachers/research scholars/students during the year
- 3.3.3.1 Total number of awards / recognitions received for research/innovations won by institution/teachers/research scholars/students year wise during the year

18

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 3.4 - Research Publications and Awards

- 3.4.1 The institution ensures implementation of its stated Code of Ethics for research
- 3.4.1.1 The institution has a stated Code of Ethics for research and the implementation of which is ensured through the following
- A. All of the above
- 1. Inclusion of research ethics in the research methodology course work
- 2. Presence of institutional Ethics committees (Animal, chemical, bioethics etc)
- 3. Plagiarism check
- 4. Research Advisory Committee

File Description	Documents
Upload relevant supporting document	<u>View File</u>

3.4.2 - The institution provides incentives to A. All of the above

teachers who receive state, national and international recognitions/awards
Commendation and monetary incentive at a University function Commendation and medal at a University function Certificate of honor Announcement in the Newsletter / website

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 3.4.3 - Number of Patents published/awarded during the year

#### 3.4.3.1 - Total number of Patents published/awarded year wise during the year

4

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 3.4.4 - Number of Ph.D's awarded per teacher during the year

#### 3.4.4.1 - How many Ph.D's are awarded during the year

13

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.4.5 - Number of research papers per teacher in the Journals notified on UGC website during the year

File Description	Documents
Upload the data template	<u> View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.4.6 - Number of books and chapters in edited volumes published per teacher during the year

### 3.4.6.1 - Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings during the year

55

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 3.4.7 - E-content is developed by teachers For e-PG-Pathshala For CEC (Under Graduate) For SWAYAM For other MOOCs platform For NPTEL/NMEICT/any other Government Initiatives For Institutional LMS

D. Any 2 of the above

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

### 3.4.8 - Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed

Scopus	Web of Science
Nil	207

File Description	Documents
Any additional information	<u>View File</u>
Bibliometrics of the publications during the year	<u>View File</u>

### 3.4.9 - Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University

	Web of Science	Scopus
1	11	Nil
1	11	Nil

File Description	Documents
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	<u>View File</u>
Any additional information	<u>View File</u>

#### 3.5 - Consultancy

- 3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual and encourages its faculty to undertake consultancy
  - In line with the expanding entrepreneurial ecosystem within the country, IIST has established Space Technology Innovation and Incubation Centre (STIIC) in its campus. Through STIIC, IIST strives to achieve the mission to foster the spirit of innovation and act as a pedestal to assist knowledge driven enterprises to establish and prosper under systematized scientific guidance and thereby mould successful entrepreneurs.
  - Space Technology Innovation and Incubation Center (STIIC) aims to promote
  - (i) innovation and entrepreneurship by converting and translating technology ideas
  - (ii) translation of results in various disciplines of science and engineering into products, processes and services for commercial exploitation
  - (iii) integrating teaching, learning, research, and innovation with real-world needs, and
  - (iv) to accelerate our nation's ability to innovate and lead a knowledge-driven economy for the larger benefit of humanity.
  - While the emphasis of the STIIC is on Space related innovations/technologies, it covers all areas of science and technology in harmony with the Nation's interest.
  - The activities of STIIC are formulated, streamlined, guided, supported, and monitored by STIIC Establishment and Operational task team and the IPR and Incubation Cell Monitoring Committee. Currently, one company VASHISHTHA RESEARCH Pvt Ltd is incubated within STIIC and several applications are under different stages of Preincubation/review.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 3.5.2 - Revenue generated from consultancy and corporate training during the year (INR in Lakhs)

## 3.5.2.1 - Total amount generated from consultancy and corporate training during the year (INR in lakhs)

#### 4725000

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 3.6 - Extension Activities

3.6.1 - Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the year

Due to the Covid-19 pandemic, students were not present in the campus during the period. However, as part of Swachhta Pakhwada 2021 the following activities were organised.

Hygiene kits were prepared in cloth bags with IIST logo and name for distribution to orphanages. Mask and sanitary napkins were included in the kits for girls and masks for boys. Wall mountable Pedal Sanitary dispensers which were fabricated in IIST along with dispenser bottle were also supplied to each orphanage.

This helped the stake holders to understand the importance ensuring hygienic practises in every day life as well as during the peculiar circumstance of the pandemic.

Other programmes like Ask an Astronomer, Astronomy school and GIS day celebrations helped the young students to get an exposure to applications of Space science and assisted to inculcate scientific temperament.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

- 3.6.2 Number of awards received by the Institution, its teachers and students from Government /Government recognised bodies in recognition of the extension activities carried out during the year
- 3.6.2.1 Total number of awards and recognition received for extension activities from Government / Government recognised bodies during the year

0

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	No File Uploaded

3.6.3 - Number of extension and outreach programs conducted by the institution including those through NSS/NCC/Red cross/YRC during the year(including Government initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs)

5

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 3.6.4 - Total number of students participating in extension activities listed at 3.6.3 above during the year

375

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 3.7 - Collaboration

- 3.7.1 Number of collaborative activities with other institutions/ research establishment/industry for research and academic development of faculty and students during the year
- 3.7.1.1 Total number of Collaborative activities with other institutions/ research establishment/industry for research and academic development of faculty and students during the year

#### 15

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 3.7.2 - Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the year

9

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### INFRASTRUCTURE AND LEARNING RESOURCES

#### **4.1 - Physical Facilities**

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

Institute has adequate facilities for teaching-learning. There are 29 classrooms, and 26 of them have LCD facilities. The institute has four academic blocks: Aerospace, Avionics, Science, and Interdisciplinary blocks. The aerospace engineering department has 17 major laboratories. The manufacturing processes lab and Engineering workshop under the aerospace engineering department effectively supports many of the project and research-related activities in IIST, encompassing all the departments in IIST. Department of avionics has 14 UG laboratories and 16 PG and research laboratories. Many postgraduate laboratories in the department have also been equipped to support advanced research activities across various disciplines. There are eight major laboratories in the department of chemistry. Department of Earth and Space Sciences has four laboratories. Department of Humanities has two labs: Audio-Visual Lab and Language Lab. The programming lab, and Machine Learning and Computing Labs are part of the mathematics department. There are 11 laboratories in the department of physics. Advanced Propulsion and Laser Diagnostic Lab, Computer Vision and Virtual Reality Lab, Centre of Advance Research in Nanoscience and Technology, Small-spacecraft Systems and Payload Centre, NEMS, and Opto-Nanoelectronics. IIST has developed an infrastructure in the interdisciplinary block for the Multidisciplinary Computing Centre to host parallel computing clusters, servers, and workstations.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

The Institute has adequate facilities for games both outdoor and indoor games. The Institute has a 110 meter square open ground for field events, football, and cricket, established in its complete form in 2018. In addition, there is an outdoor basketball court, volleyball court, a net bowling facility for cricket, and an outdoor gym facility. The indoor recreational facilities are contained in the student activities center. The students activity center was rendered functional in 2019-2020. There is a gymnasium, a pair of badminton courts, and a squash court. The gymnasium is housed in an area of 236 square meters, the badminton courts in an area of 545 square meters, and the squash court in an area of 85 square meters. There is also a recreational hall to house games such as chess, carrom, table tennis, and carrom. The recreational hall has an area of 315 square meters. Table tennis facilities are also available in the academic blocks. The student activities center also has an open-air auditorium to host cultural activities, yoga, and Dhanak, the cultural fest of the Institute. The open-air auditorium can readily accommodate more than 500 people. The Institute also has a dedicated music club. Various musical instruments such as keyboard, guitars, violins, drums, and flutes, are provided by the Institute for general use.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

In order to make campus life more comfortable, IIST has created many facilities on the campus. IIST houses two indoor badminton courts for training and practice and two other badminton courts for leisure playing. The basketball facility with floodlight,

two volleyball courts, cricket net practice facility and tracks for conducting athletic events are a few other sports facilities available on the campus. The tech fest Conscientia, and the cultural fest Dhanak of the Institute, is facilitated by this committee. The Students' Activities Center (SAC) caters to these requirements.

A branch of Union Bank of India and ATM service is available on the campus. A well-equipped canteen caters to the daily food requirements of students and staff. A privately run cafeteria operates on the campus till midnight, providing vegetarian and non-vegetarian food. The campus has two artificially created ponds, which keep the water table stable. There is also a water recycling plant.

The campus is differently-abled friendly and provides additional facilities as and when required for the differently-abled students.

The Medical Facility of IIST is functional round the clock with the support of doctors and paramedical staff. The Institute also employs a full-time counsellor to guide students and staff of the Institute to achieve their goals.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 4.1.4 - Total expenditure excluding salary for infrastructure augmentation during the year (INR in Lakhs)

#### 1055.16

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 4.2 - Library as a Learning Resource

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

Library was automated since the inception by using the Koha - an open source ILMS. The automation was done in full-fledged manner with all functional modules. All library operations,

such as acquisition, periodical control, circulation, OPAC etc were done using the different modules of the software. Recently, the software has been upgraded to the latest stable version (V. 20.11.06.000) which is having more advanced features.

Library has two multi-functional high end printing cum scanner machines (one black and white and one colour) for scanning various types of documents for digitisation. A table top scanner is also available for scanning purpose. A new high end machine with scanning (black and white, colour) facility added in January 2021. In addition, most of the institute publications such as annual reports, newsletters, conference proceedings, convocation speeches, workshop materials etc are prepared in the Graphic Design Facility of the library. Graphic Design Facility acts as an important source for digital forms of the documents.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 4.2.2 - Institution has subscription for e-Library resources Library has regular subscription for the following: e – journals e-books e-ShodhSindhu Shodhganga Databases

A. Any 4 or all of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 4.2.3 - Annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the year (INR in Lakhs)

#### 201.77

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 4.2.4 - Number of usage of library by teachers and students per day (foot falls and login data for online access)

#### 1107

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 4.3 - IT Infrastructure

## 4.3.1 - Number of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities during the year

#### 29

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

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

#### Salient Features of IT Policy

- Usage of information technology and its infrastructure and services of the institution are broadly governed in compliance with the IT policies of the Dept. of Space, Govt. of India.
- The institution has also adopted and implemented IT usage policies that facilitates a safe and stable IT eco-system for all its students and members of faculty and staff.
   This is in consideration of the institution being a fullyresidential higher education and research institution, and also a 'deemed-to-be university' bound by guidelines of the UGC, Govt.of India.
- The institution offers privileged access to its students and members of faculty and staff for the use of institution's computers in order to learn and communicate and share information and digital resources within and outside the institution through the institution's campusnetwork and space-network.
- Usage through the campus-network facilitates access to IT services and computing resources using the institution's own computers as well as in 'bring-your-own-devices' (BYOD) of students and members of faculty and staff, round the clock. Users are segregated and assigned under

different local area networks(LANs) and wireless networks(WLANs) for academic areas, research areas, administrative areas and residential areas, based on privileges assigned.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 4.3.3 - Student - Computer ratio during the year

	Number of Computers available to students for academic purposes
3	2

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

• ?1 GBPS

File Description	Documents
Upload relevant supporting document	<u>View File</u>

# 4.3.5 - Institution has the following Facilities for e-content development Media centre Audio visual centre Lecture Capturing System(LCS) Mixing equipment's and softwares for editing

A. All of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Upload the data template	<u>View File</u>

#### 4.4 - Maintenance of Campus Infrastructure

## 4.4.1 - Total expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the year

#### 4143.94

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

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

The institute has well-organized mechanisms for the maintenance and utilization of its facilities. The physical assets of the Institute, such as the buildings, classrooms, electrical power, air condition and landscaping, are all maintained by the Construction and Maintenance Division (CMD) Section. The transport department caters to running and maintaining buses, conveyance light vehicles, and ambulance services. The Purchase and Stores Section takes care of purchase and making inventory by following the approved standard procedures. Library staff manages acquisition of print and electronic resources for the academic and research needs of the academic community. Library also acts as the central reprographic / printing / binding facility. Computer Systems Group manages and maintains computer systems, networking, and related electronic infrastructure in IIST for provisioning and facilitating IT and non-IT services for the Institute.

The classrooms, furniture, seminar halls, and other associated accessories such as projectors, etc., are all attached to the respective academic department heads. The laboratories attached to each department come under an identified faculty coordinator/in charge in the department. Lab assistants and lab technicians assist them.

A food and canteen committee constituted of faculty, students, and the canteen head addresses various food-related details such as the menu, mess timings, etc.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### STUDENT SUPPORT AND PROGRESSION

#### **5.1 - Student Support**

5.1.1 - Total number of students benefited by scholarships and free ships provided by the institution, Government and non-government agencies (NGOs) during the year (other than the students receiving scholarships under the government schemes for reserved categories)

620

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 5.1.2 - Total number of students benefited by career counselling and guidance for competitive examinations offered by the Institution during the year

0

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	<u>View File</u>

# 5.1.3 - Following Capacity development and skills enhancement initiatives are taken by the institution Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) Awareness of trends in technology

A. All of the above

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

5.1.4 - The Institution adopts the following for redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organisation wide awareness and undertakings on policies with zero tolerance Mechanisms for submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

• All of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### **5.2 - Student Progression**

- 5.2.1 Number of students qualifying in state/ national/ international level examinations during the year (eg:NET/SLET/GATE/GMAT/CAT/ GRE/TOEFL/Civil Services/State government examinations)
- 5.2.1.1 Number of students who qualified in state/ national/ international examinations (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year

5

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 5.2.2 - Total number of placement of outgoing students during the year

107

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 5.2.3 - Number of recently graduated students who have progressed to higher education (previous graduating batch) during the year

20

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 5.3 - Student Participation and Activities

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

0

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	No File Uploaded

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

An active Student Activity Board (SAB) serves as the voice for the entire student community of IIST. The Student Activity Board headed by Dean Student Activities of IIST has the participation of faculty members and students and actively works to promote a better learning environment within the institute. It oversees all activities of students through various committees and clubs, which help share student ideas, interests and concerns with the management of IIST. SAB gives students an opportunity to develop their leadership skills by organizing and carrying out several activities and service projects. The students organize and manage several programmes every year, of which, some of the most notable are an intercollegiate cultural festival named "Dhanak", an intercollegiate technological festival named "Conscientia", MUN, an intra-collegiate fest known as Konchords etc. These events provide a platform for the students to showcase their talents and creativity both in the cultural as well as in the technological domains as well as to fine tune their skills and leadership qualities. All such fests are planned, implemented, monitored and evaluated by the students with the help of faculty members

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 5.3.3 - Number of sports and cultural events / competitions organised by the institution during the year

0

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	No File Uploaded

#### 5.4 - Alumni Engagement

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

Interactive career guidance sessions for students with a focus on careers within ISRO, beyond ISRO, and entrepreneurial aspects have been conducted garnering good responses. Interactions with the Placement cell were held to understand the requirements and discover ways to extend support to the placement cell. In collaboration with Vaave and IIST Students, a Student Alumni Relationship Cell (SARC) was formed which is a student-led team and assists both IIST Alumni Association and IIST in building and strengthening alumni & student networks. Sessions emphasizing on the opportunities for higher studies and sharing of first-hand entrepreneurial experiences have been beneficial to improving alumni networks and seeking guidance. Lecture series and webinars for an audience with a specific set of interests, these sessions have been able to bring together alumni and students from different batches having similar interests with an aim to improve connectedness across different batches. Outreach programs related to Art & Science were organized for engagement with alumni & the student community and the general public. The podcast series initiated in collaboration with the Sounding Rocket Team (TSR) IIST brought short conversations with scientific researchers closer home, from across the country, and around the globe to the IIST community.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 5.4.2 - Alumni contribution during the year (INR in Lakhs)

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### GOVERNANCE, LEADERSHIP AND MANAGEMENT

#### 6.1 - Institutional Vision and Leadership

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

The academic programmes in IIST have been envisioned to strengthen the fundamentals, experience the realities through practical work, and enhance the knowledge and understanding in the areas relevant to the Aerospace sector. The institute provides an academic perspective to the activities of ISRO by retaining a symbiotic relationship through several sponsored projects, planning and review processes. The students of the Institute get several opportunities of internships and employment at various centres of ISRO. The Institute is focused on strong interdisciplinary and collaborative work both within the various departments and across the various centres of ISRO, which will help to generate excellent technologies responding to the need of local, national and global interest. IIST envisages to be a global leader in the areas of science and technology related to Aerospace sector in the days to come by capacity buildingin terms of infrastructure and human capital. IIST also has a number of international collaborations, both as MOU at the level of the institute and faculty-to-faculty collaboration.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

The leadership of our institute helped us to make suitable decisions to tide over theunpredictable situation. Even during the difficult Covid pandemic period, the institute could complete someof the infrastructure projects and contribute significantly to the research activities.

IIST continued its good position in the NIRF ranking in the current year as well at 40th position in the engineering category.

We have several collaborative projects with ISRO centres and the Advanced SpaceResearch Group (ASRG) is spearheading the development of the systems necessary forbringing the institute closer to the ISRO centres in a mutually beneficial way.

The institute wishes to charter a new path of growth by harvesting the benefits of theacademic foundations and research. It would be imperative for us to augment thecapacity building in terms of infrastructure and human capital to strive

towards aworld class institution of higher learning. We also look forward to the opening -up of the space sector and yearn to play a much bigger role in the future and hope to gainthe status of the Institute of National Importance soon.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

#### 6.2.1 - The institutional Strategic plan is effectively deployed

The Institute recognizes the importance of research in developing futuretechnologies and applications of space research. IIST encourages all its facultymembers to guide and supervise young scholars for the PhD programme as well asfor Post-Doctoral programmes. The major theme of our research portfolio is theapplication of cutting - edge science to generate new technology. The style ofresearch in IIST is both theoretical as well as richly experimental, and the institutehas set up state-of-the-art facilities in all departments to support its researchactivities. The Institute is focused on strong interdisciplinary and collaborativework both within the various departments and across the various centres of ISRO, which will help to generate excellent technologies responding to the need of local, national and global interest. IIST envisages to be a global leader in the areas ofscience and technology related to Aerospace sector in the days to come by capacity building in terms of infrastructure and human capital. IIST also has anumber of international collaborations, both as MOU at the level of institute and faculty-to-faculty collaboration.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

IIST was started keeping in mind the need for high quality manpower for the Indian Space Research Organization, one of world's leading scientific organizations engaged in space

research and space applications. For the efficient and effective functioning of the institute a clear leadership and organization is ensured through an organization structure comprised of Chancellor, Director, Governing Council, Academic Council, Research Council, Deans of institute, Heads of Departments, Board of Management, Registrar, Administration, etc. The Director provides overall guidance to academic programs and also takes strategic administrative decisions of the institute. The director sets up necessary committees to conduct academic programs and get the administrative activities done. The Academics section of the institute is headed by Dean (Academics). This section undertakes all decisions related to admission of students, preparing the academic calendar, the conduct of exams, publishing of results, convocation-related activities, etc. Dean (R&D) is responsible for Research and Development activities at the institute level. Faculty members coming up with project proposals are discussed here. IIST Research Board is formed toenable, promote and nurture the innovative research activity meeting the requirements and challenges of the Indian Space Programme. Research Council (RC), constituted by the Director, IIST, has the mandate to have oversight (monitoring) on research progress and other academic matters of the Research scholars. All such relevant papers will be routed through Dean (R & D) who is the Chairperson of the RC.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 6.2.3 - Institution Implements e-governance in its areas of operations

## 6.2.3.1 - e-governance is implemented covering following areas of operation

A. All of the above

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

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 6.3 - Faculty Empowerment Strategies

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

IIST follows the Merit Promotion Scheme (MPS) of Department of Space wherein the individual will be promoted to the next higher grade after the pre-defined residency by the virtue of individual excellence without any reference to vacancies. The residency period defined (and modified from time to time) by Department of Space for ISRO Scientists/Engineers is followed in the Institute. Like Faculty, the Non-Faculty (Technical) are also be governed by MPS prevalent/followed in ISRO for its scientific/ technical staff other than Scientist/Engineers.

IIST Medical Scheme, which is akin to the Contributory Health Service Scheme (CHSS) of the Government is given to permanent employees of IIST and is applicable to all the employees of the Institute and members of their families, wholly dependent and normally residing with them. Intranet site: http://172.20.10.126/STAFF/circulars/IIST BYE-LAW.pdf

SAFE (Scheme for Assistance to Families in Exigency) is Vikram A. Sarabhai Trust(VAST) as a welfare measure for the DOS/ISRO community. The beneficiaries are the employees who opt to join this scheme and optionally, their family members. VAST Insurance Scheme Whenever Accident Strikes a voluntary and contributory welfare scheme to provide risk coverage for "Death due to Accidents" - anytime and anywhere in the world. (website: http://staff.iist.ac.in/vast/)

File Description	Documents
Upload relevant supporting document	<u>View File</u>

## 6.3.2 - Total number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

57

File Description	Documents
Upload the data template	<u> View File</u>
Upload relevant supporting document	<u>View File</u>

## 6.3.3 - Number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the year

12

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 6.3.4 - Total number of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the year(Professional Development Programmes, Orientation / Induction Programmes Refresher Course, Short Term Course)

22

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

#### 6.4 - Financial Management and Resource Mobilization

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

The Institute's primary and majority funding is from the Department of Space in the form of Grant in Aid for meeting Capital, General and Salary expenditure. Additionally, the Institute charges fees from the students.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

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

1100

File Description	Documents
Upload the data template	<u>View File</u>
Upload relevant supporting document	<u>View File</u>

## 6.4.3 - Funds / Grants received from non-government bodies, individuals, philanthropists during the year for development and maintenance of infrastructure (not covered under Criteria III and V)(INR in Lakhs)

0

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting document	No File Uploaded

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

A. Statutory Audit - is carried out on a yearly basis by CAG empanelled Chartered Accountants. Financial statements are certified by Chartered Accountants and financial compliance is ensured. B. Internal Audit - is carried out by the Department of Space on a regular basis. Procedural compliances in finance, purchase and administrative areas are reviewed. Audit objections raised C. CAG Audit - is carried out very few years with emphasis on propriety and efficiency Audit objections raised are clarified and corrective measures adopted. Audited Financial Statements are uploaded on the Institute website.

The link for the statement for the year 2020-21 is given below :- https://www.iist.ac.in/sites/default/files/library/Annual%20 Report%202020-%2021%20-%20Final%20with%20Audit%202,12,21%20-%20 5%20PM\_compressed.pdf

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 6.5 - Internal Quality Assurance System

- 6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes by constantly reviewing the teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals
- 1.Due to Covid 19 pandemic, the classes were conducted through Learning Management Systems (LMS) and online platform.
- 2. As the classes were conducted through online, the evaluation weightages for the various components of the theory courses were changed from 15 marks for each of the two quizzes and 50

marks for the end semester examination to 20 marks for each of the two quizzes and 40 marks for the end semester examination. The component of 20 marks weightage for the Tecahers Assessment, however remained the same. The duration of the end semester examination, however was reduced to 2 hours for the online exam from 3 hours.

- 3. As the examination was conducted in online mode, the students were given adequate and additional uploading time over and above the regular online duration.
- 4. Due to delay in the conduct and declaration of JEE (Advanced) Examination 2020, the first year UG classes for the academic session 2020-21 could commence only by last week of November 2020. Keeping in mind the need for the first year UG students who joined in 2020-21 to be aligned with their seniors after one year, the institute decided to conduct 6 days week online classes (including classes on Saturday morning sessions) instead of the usual 5 day week to compensate and make up for the late commencement of first year UG classes.
- 5. PhD viva-voce examinations were conducted online and hence physical presence of student/expert member/ others were avoided.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

6.5.2 - Institution has adopted the following for Quality assurance Academic Administrative Audit (AAA) and follow up action taken Confernces, Seminars, Workshops on quality conducted Collaborative quality initiatives with other institution(s) Orientation programme on quality issues for teachers and studens Participation in NIRF Any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

E. Any 1of the above

File Description	Documents
Upload the data template	No File Uploaded
Upload relevant supporting documnent	<u>View File</u>

- 6.5.3 Incremental improvements made for the preceding during the year with regard to quality (in case of first cycle) Post accreditation quality initiatives(second and subsequent cycles)
- 1. Due to Covid-19 pandemic situation, it was decided to have all lab exams, viva voce and seminar evaluations for this academic year using online mode only
- 2. Due to Covid-19 pandemic situation it was decided to have PhD defence/PhD Viva from March 2020 onwards using

online mode only

- 3. Due to Covid 19 pandemic situation it was decided to award the grades for all the courses for the even semester 2019-2020 academic year based on Quiz I (15 marks) and internal assessment (25 marks). This was based on the approach adopted by most IITs due to inherent difficulties faced by most institutions in implementing LMS moodle seamlessly for online examination during the beginning of the pandemic situation.
- 4. Due to Covid-19 pandemic situation and the attendant national lockdown as well as the intermittent state level lockdown, the institute moved completely from the offline mode of teaching to the online mode of teaching. Furthermore, with students no longer in the campus, the offline exams (mid-term Quizzes and end semester examinations) were changed to online examinations using LMS Moodle. For each exam room having about 25 students, one faculty and one tutor were designated to invigilate and oversee smooth conduct of the online examination. A LMS committee was constituted that ensured seamless and smooth conduct of the online examination.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### INSTITUTIONAL VALUES AND BEST PRACTICES

#### 7.1 - Institutional Values and Social Responsibilities

#### 7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

- A gender sensitization committee with representatives from both gender is active in IIST
- Womens day Celebration at IIST was celebrated in online mode on 31st March 2021. Chief Guest for the function was Smt Mangala Mani, Scientist / Engineer at NRSC and a member of the 36th Indian Expedition Team to Antarctica. Her talk titled "Choose to Challenge" was highly motivational and sensitized the women in IIST
- In view of the pandemic Medical Check-up camp was organized in phased manner for the women staff working in contract basis in IIST. Two Live sessions on Personal Health and Hygiene by IIST Medical Officer were also organized for the house keeping ladies in IIST.

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Annual gender sensitization action plan(s)	Nil
Specific facilities provided for women in terms of: a. Safety and security b. Counseling c. Common rooms d. Daycare Centre e. Any other relevant information	a. Safety and security The campus is under the security and monitoring of CISF. Each building has a janitor 24x7 hrs to inspect the activities inside the building and to whom the students can approach for any help. b. Counseling A full time counsellor available for the needs of women in the institute. The students can also place their grievances in Gender Sensitization committee, ICC or Grievance cell. Each students is also assigned to a mentor with senior students as buddy mentors c. Common rooms Separate wash rooms provided in all floors. Rest rooms for housekeeping ladies also identified in all buildings. Incinerators are made available in all floors of the ladies hostel to enable the easy disposal of sanitary pads. d. Daycare Centre NIL e. Any other relevant information https://www.iist.ac.in/library/annual#

# 7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/power-efficient equipment

A. Any 4 or All of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system Hazardous chemicals and radioactive waste management

A no waste incinerator is maintained in the campus for proper waste disposal. Napkin Incinerators are also installed in all ladies hostel and one ladies toilet each in all academic buildings. A Bio Gas plant is operated and maintained by Canteen Services and the byproducts of biogas are used as fertilizer. A compost pit has been made where dry leaves are collected and disposed and is used for of gardening purpose. Food waste, plastic waste, paper waste collected separately and disposed. For collecting these, separate dust bins are provided in each floors of all buildings. The campus has banned the use of plastic. Still it comes to the campus along with some purchases by the students staying in hostels. Plastic bottles, disposed by students are reused for planting. As part of Green Kerala Mission policy, the plastic waste generated in the campus are also disposed through Haritha Karma Sena, an authorized/registered recycler.Paper waste generated is shredded using Paper Shredders within the campus and disposed through authorised recyclers. Water treatment plants are installed inside the campus for recycling used water which is later used for gardening purpose. Since the campus is relatively new, E- waste generated is almost nil.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge

A. Any 4 or all of the above

Construction of tanks and bunds Waste
water recycling Maintenance of water
bodies and distribution system in the
campus

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 7.1.5 - Green campus initiatives include

- 7.1.5.1 The institutional initiatives for greening the campus are as follows:
  - 1. Restricted entry of automobiles
  - 2. Use of bicycles/ Battery-powered vehicles
  - 3. Pedestrian-friendly pathways
  - 4. Ban on use of plastic
  - 5. Landscaping

A.	Any	4	or	All	of	the	above
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File Description	Documents
Upload relevant supporting document	<u>View File</u>

### 7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution

- 7.1.6.1 The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following:
  - 1. Green audit
  - 2. Energy audit
  - 3. Environment audit
  - 4. Clean and green campus recognitions/awards
  - **5.** Beyond the campus environmental promotional activities

C. Any 2 of the above	C.	Any	2	of	the	abov
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File Description	Documents
Upload relevant supporting document	<u>View File</u>

7.1.7 - The Institution has a disabled-friendly and barrier-free environment Ramps/lifts for easy access to classrooms and centres. Disabled-friendly washrooms Signage including tactile path lights, display boards and signposts Assistive technology and facilities for persons with disabilities: accessible website, screen-reading software, mechanized equipment, etc. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc.

#### C. Any 2 of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words)

Hygiene kits were prepared in cloth bags with IIST logo and name for distribution to orphanages. Mask and sanitary napkins were included in the kits. Wall mountable Pedal Sanitary dispenser which was fabricated in IIST along with dispenser bottle were also supplied to each orphanage. 10 litres each of sanitizer prepared by Department of Chemistry, IIST was also supplied to the orphanages.

In view of the pandemic two Live sessions on Personal Health and Hygiene by IIST Medical Officer were organized for the cleaning staff in IIST.

Medical Check-up Medical Check-up camp was organized in phased manner for the women staff working in contract basis in IIST

The institute is following disabled inclusive measures. Buildings have disabled access ramp, lifts, accessible toilets etc., for the convenience of persons with reduced mobility. All the academic blocks, Administrative building and Library are provided with ramp and lifts and toilet for Divyang people. Student Activity Centre, Hostels and mess building are also provided with accessible toilets and ramps.

IIST has organized a new edition of IIST@Shcools program named

"Beyond the Horizon" from 3rd to 7th August 2020 in collaboration with Sargakshetra Academy & Charitable Centre. The program was aimed to create awareness about space science & technology and to instill scientific temper among the school children of government schools. The programe was organized in the webinar mode for the school students of 10th to 12th standard from all over the state.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

7.1.9 - Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens:

- Constitution Day was celebrated on 26th November 2020 in IIST to commemorate the adoption of the Indian Constitution. Dr V K Dadhwal, Director, unveiled the 'Preamble Wall' that has been set up in the Library and a talk was delivered by Dr Gopa Kumar on Constitution and Constitutionalism, which helped to instil the Essence and Spirit of Indian Constitution"
- Induction Program which include a program on The Happiness Quotient with 7 or 8 sessions that help the students to start their B.Tech. journey on the best note. Sessions include a mix of yoga for toning the body, meditations to improve concentration, breath-work to enhance immunity and lung capacity, ice-breakers & sessions on values of life
- The courses offered by the Humanities department such as Introduction to Social Science and Ethics and Economics cover several aspects of rights, duties and responsibilities of citizens.
- Independence Day and Republic Day were celebrated with all dignity and fervour which helped in inculcating the values of harmony, to commemorate the valour and spirit of the freedom fighters who fought for the independence and to Celebrate the Spirit of Freedom
- Swachhta Pakhwada 2021 in IIST was organized from 1st to 15th February 2021wth several events which helped to fulfil Mahatma Gandhi's dream of a clean and hygienic society and country.

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff Annual awareness programmes on Code of Conduct are organized

All of the above

File Description	Documents
Upload relevant supporting document	<u>View File</u>

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

The pandemic put a lock to many activities in the institute. Still many of the important days were celebrated following all covid protocols.

- Constitution Day was celebrated on 26th November 2020 in IIST to commemorate the adoption of the Indian Constitution. Dr V K Dadhwal, Director, unveiled the 'Preamble Wall' that has been set up in the Library and a talk was delivered by Dr Gopa Kumar on Constitution and Constitutionalism, which helped to instil the Essence and Spirit of Indian Constitution.
- Swachhta Pakhwada 2021 in IIST was organized from 1st to 15th February 2021wth several events.
- International GIS Day is celebrated in 3rd week of November. At IIST, this year GIS Day 2020 was celebrated with a Special Lecture by Dr V K Dadhwal, Director, IIST on 'Growth, Trend and Challenges of Geospatial Tools and Techniques.
- IIST celebrated Independence day 2020 and Republic day 2021 in a contained manner due to the pandemic situation but with all the respect and fervor demanded for the occasion.
- Ministry of Ayurveda, Yoga and Naturopathy and Department of Space had communicated plans to observe International Day of Yoga in a non-congregative manner on 21.6.2020.

- Students, faculty, staff and family members joined thousands of others from their respective homes by doing the 45 minute long
- Common Yoga Protocol (CYP) drill on 21.6.2020, by observing Covid-19 protocols.

File Description	Documents
Upload relevant supporting document	<u>View File</u>

#### 7.2 - Best Practices

- 7.2.1 Describe one best practice successfully implemented by the Institution as per NAAC format provided in the Manual
  - 1. Title Placement Cell of IIST
  - 2. Objectives IIST ensures that the students of IIST are appropriately placed and thereby contribute to the growth of the nation.
  - 3. Context All BTech students having a CGPA of 7.5 are absorbed into ISRO as Scientist SC, which is co-ordinated by the management of IIST along with the placement cell. In order to oversee the absorption of BTech students who have not joined ISRO and also that of the MTech and PhD a placement cell was found very necessary.
  - 4. Practice The cell continually liaise with industry, R&D organizations, and management Institutions, and tries to coherently match the interests of students with an appropriate job profile. Internship for both B.Tech. and M.Tech. Programmes is also worked out in line with the Institute policies and guidelines.
  - 5. Evidence of Success A total of 1153 BTech students are placed in ISRO till 2021. A total of 18 companies have recruited students who have not joined ISRO in 2021.
  - 6. Problems Encountered and Resources Required The cell needs an office to function and 2 dedicated faculty members as placement officers. A dedicated placement officer with experience in the field is of utmost importance and the institute is trying for the same.

#### 7.3 - Institutional Distinctiveness

7.3.1 - Highlight the performance of the institution in an area distinct to its priority and thrust (within a maximum of 200 words)

During the covid-19 pandemic, Institute developed virus protection devices, such as

- 1. Face shield in collaboration with IEEE-IIST student chapter.
- 2. Mobile UV disinfection unit Sensors and Payloads Development Laboratory (SPDL) at IIST has come up with a simple, portable and omnidirectional UV disinfection prototype to sanitize workplaces remotely and safely. The unit uses established technique of killing the pathogens by photodissociation of their genetic material (RNA and DNA). The unit is capable of completely destroying all types of viruses and bacteria from any open surface. This time-tested technique is often used in advanced biology and biomedical laboratories.

#### 7.3.2 - Plan of action for the next academic year

- Due to Covid pandemic, the selection of PG students through interview was held through online platform.
- Entrance examination for PhD admission was also conducted through online mode.
- Due to Covid pandemic, the institute decided to conduct its Convocation through online
- Due to Covid pandemic, the institute decided to continue with online teaching and online examinations