



Yearly Status Report - 2016-2017

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 own campus | | Yes |
| Phone no/Alternate Phone no. | | 04712568402 |
| Mobile no. | | 7022267122 |
| Registered Email | | registrar@iist.ac.in |
| Alternate Email | | director@iist.ac.in |
| Address | | Valiamala Post, Thiruvananthapuram |
| City/Town | | Thiruvananthapuram |
| State/UT | | Kerala |
| Pincode | | 695547 |

| 2. Institutional Status | | | | | | | | | | | | | | | | | | | |
|--|---|------|----------------------|-------------|-------------|-------|-------|------|----------------------|----------|--|-------------|-----------|---|---|------|------|-------------|-------------|
| University | Deemed | | | | | | | | | | | | | | | | | | |
| Type of Institution | Co-education | | | | | | | | | | | | | | | | | | |
| Location | Rural | | | | | | | | | | | | | | | | | | |
| Financial Status | central | | | | | | | | | | | | | | | | | | |
| Name of the IQAC co-ordinator/Director | Dr K S Subrahmanian Moosath | | | | | | | | | | | | | | | | | | |
| Phone no/Alternate Phone no. | 04712568538 | | | | | | | | | | | | | | | | | | |
| Mobile no. | 9495743148 | | | | | | | | | | | | | | | | | | |
| Registered Email | smoosath@iist.ac.in | | | | | | | | | | | | | | | | | | |
| Alternate Email | smoosath@gmail.com | | | | | | | | | | | | | | | | | | |
| 3. Website Address | | | | | | | | | | | | | | | | | | | |
| Web-link of the AQAR: (Previous Academic Year) | https://www.iist.ac.in/aboutus/institute | | | | | | | | | | | | | | | | | | |
| 4. Whether Academic Calendar prepared during the year | Yes | | | | | | | | | | | | | | | | | | |
| if yes,whether it is uploaded in the institutional website: Weblink : | https://iist.ac.in/sites/default/files/academic/calendar/Academic%20Calendar%202021-22%20Jan-July%20even%20sem%2006.1.22.pdf | | | | | | | | | | | | | | | | | | |
| 5. Accrediation Details | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th rowspan="2">Cycle</th> <th rowspan="2">Grade</th> <th rowspan="2">CGPA</th> <th rowspan="2">Year of Accrediation</th> <th colspan="2">Validity</th> </tr> <tr> <th>Period From</th> <th>Period To</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>B</td> <td>2.87</td> <td>2013</td> <td>08-Jul-2013</td> <td>07-Jul-2018</td> </tr> </tbody> </table> | | | | | | Cycle | Grade | CGPA | Year of Accrediation | Validity | | Period From | Period To | 1 | B | 2.87 | 2013 | 08-Jul-2013 | 07-Jul-2018 |
| Cycle | Grade | CGPA | Year of Accrediation | Validity | | | | | | | | | | | | | | | |
| | | | | Period From | Period To | | | | | | | | | | | | | | |
| 1 | B | 2.87 | 2013 | 08-Jul-2013 | 07-Jul-2018 | | | | | | | | | | | | | | |
| 6. Date of Establishment of IQAC | 16-Feb-2012 | | | | | | | | | | | | | | | | | | |
| 7. Internal Quality Assurance System | | | | | | | | | | | | | | | | | | | |
| Quality initiatives by IQAC during the year for promoting quality culture | | | | | | | | | | | | | | | | | | | |

| Item /Title of the quality initiative by IQAC | Date & Duration | Number of participants/ beneficiaries |
|---|-----------------|---------------------------------------|
| No Data Entered/Not Applicable!!! | | |
| No Files Uploaded !!! | | |

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

| Institution/Department/Faculty | Scheme | Funding Agency | Year of award with duration | Amount |
|--|--------|----------------|-----------------------------|--------|
| No Data Entered/Not Applicable!!! | | | | |
| No Files Uploaded !!! | | | | |

9. Whether composition of IQAC as per latest NAAC guidelines:

Yes

Upload latest notification of formation of IQAC

[View File](#)

10. Number of IQAC meetings held during the year :

0

The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website

No

Upload the minutes of meeting and action taken report

No Files Uploaded !!!

11. Whether IQAC received funding from any of the funding agency to support its activities during the year?

No

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

- To modify the name of B.Tech (Avionics) programme to a more acceptable name, B.Tech in Electronics and Communication Engineering (Avionics)

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

| Plan of Action | Achivements/Outcomes |
|--|-----------------------|
| There were several discussions with students that culminated with a request from IIST students of BTech (Avionics) programme to change the name of their programme from B.Tech (Avionics) to a | Proposed and accepted |

more common and acceptable name since they were not able to apply for higher studies and seek industrial/government jobs. After detailed deliberations, Department of Avionics, IIST put in place a proposal to modify the name of B.Tech (Avionics) programme to a more acceptable name, B.Tech in Electronics and Communication Engineering (Avionics). The above proposal from Department of Avionics suggested that the above change in the name of the BTech programme be applicable for all the BTech (Avionics) students who were admitted at IIST from the academic year 2014 onwards.

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| | |
|--|--|
| 14. Whether AQAR was placed before statutory body ? | No |
| 15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ? | No |
| 16. Whether institutional data submitted to AISHE: | Yes |
| Year of Submission | 2016 |
| Date of Submission | 26-Dec-2016 |
| 17. Does the Institution have Management Information System ? | Yes |
| If yes, give a brief description and a list of modules currently operational (maximum 500 words) | IIST does have the information system (iCampus) that assist the complete academic module and admission portal for UG/PG and PhD programmes. The highlights of the iCampus is as following: 1. Marking students attendance 2. Course allocation 3. Evaluation for both Quiz's and End semester examination which includes projects and internship 4. Finalization and publication of grades 5. Students registration portal |

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Design and Development

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

| Name of Programme | Programme Code | Programme Specialization | Date of Revision |
|-------------------|----------------|--------------------------|------------------|
| BTech | BAV01 | Avionics | 26/09/2016 |
| No file uploaded. | | | |

1.1.2 – Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

| Programme with Code | Programme Specialization | Date of Introduction | Course with Code | Date of Introduction |
|---------------------|--------------------------|----------------------|------------------|----------------------|
| Mtech | Power Electronics | 25/07/2016 | AVP861 | 25/07/2016 |
| No file uploaded. | | | | |

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the Academic year

| Programme/Course | Programme Specialization | Dates of Introduction |
|-------------------|--------------------------|-----------------------|
| Mtech | Power Electronics | 25/07/2016 |
| No file uploaded. | | |

1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the University level during the Academic year.

| Name of programmes adopting CBCS | Programme Specialization | Date of implementation of CBCS/Elective Course System |
|------------------------------------|--------------------------|---|
| No Data Entered/Not Applicable !!! | | |

1.3 – Curriculum Enrichment

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

| Value Added Courses | Date of Introduction | Number of Students Enrolled |
|------------------------------------|----------------------|-----------------------------|
| No Data Entered/Not Applicable !!! | | |
| No file uploaded. | | |

1.3.2 – Field Projects / Internships under taken during the year

| Project/Programme Title | Programme Specialization | No. of students enrolled for Field Projects / Internships |
|-------------------------|----------------------------------|---|
| BTech | Aerospace Engineering | 46 |
| BTech | Avionics | 59 |
| BTech | Engineering Physics | 31 |
| Mtech | Materials Science and Technology | 6 |
| Mtech | Digital Signal Processing | 5 |
| Mtech | VLSI and Microsystems | 3 |
| Mtech | Control Systems | 3 |
| No file uploaded. | | |

1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

| | |
|-----------|-----|
| Students | Yes |
| Teachers | No |
| Employers | No |
| Alumni | No |
| Parents | No |

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

Feedback Obtained

All the academic programmes and curricula are designed based on extensive feedback given by academic peers, engineers/scientists from various ISRO centers, other research organizations, and industry experts. We also take the parents into confidence regarding our academic programmes at the time of student counselling when parents visit the campus. The input from all the stakeholders is considered at the time of curriculum revisions. In IIST, we have a formal mechanism to obtain student feedback on all the courses. Students give anonymous feedback on the course they have attended at the end of each semester. Students play an important role in providing the detailed feedback about the course content, and delivery methodology adopted by the instructor. The feedbacks are collected, evaluated and discussed in the department level meetings. These inputs are taken into consideration while revising the curriculum. We also collect feedback from alumni for getting useful suggestions for improving the curriculum. Informal feedbacks are also collected from students on the courses and curriculum during discussions in the respective class committee meetings which we regularly conduct after each quiz. We use indigenously developed iCampus portal to collect the feedback from students. They are asked to give their feedback with respect to reading material provided, reference books, examination pattern, teaching method, doubt clearing, quality of question papers/ assignments, etc. A summary report is then generated and forwarded to the respective faculty. Suitable corrective action if necessary is taken by the faculty in consultation with Head of the department.

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

| Name of the Programme | Programme Specialization | Number of seats available | Number of Application received | Students Enrolled |
|---|--------------------------|---------------------------|--------------------------------|-------------------|
| No Data Entered/Not Applicable !!! | | | | |
| View File | | | | |

2.2 – Catering to Student Diversity

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

| Year | Number of students enrolled in the institution (UG) | Number of students enrolled in the institution (PG) | Number of fulltime teachers available in the institution teaching only UG courses | Number of fulltime teachers available in the institution teaching only PG courses | Number of teachers teaching both UG and PG courses |
|------|---|---|---|---|--|
| 2016 | 467 | 228 | 6 | 5 | 85 |

2.3 – Teaching - Learning Process

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

| Number of Teachers on Roll | Number of teachers using ICT (LMS, e-Resources) | ICT Tools and resources available | Number of ICT enabled Classrooms | Number of smart classrooms | E-resources and techniques used |
|--|---|-----------------------------------|----------------------------------|----------------------------|---------------------------------|
| No Data Entered/Not Applicable !!! | | | | | |
| View File of ICT Tools and resources | | | | | |
| View File of E-resources and techniques used | | | | | |

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

The mentoring system at IIST nurtures the very goal, and is initiated to help student grow into self sufficient individuals within the 4-5 years of academic life. Institute has an actively functioning mentors committee under the Students Activity (SA) board since 2014. This is a voluntary service rendered by the faculty members of IIST focusing primarily the first year B. Tech. students. The aim is to provide a friendly guidance to the newly joined teen-age students who are possibly going to stay outside of their parents umbrella for the first time. Many students find the transition difficult and mentoring provides extra support for them in finding footing in the institute. Mentoring system at IIST assist the first year students in adapting to the new system, helping them solve multiple issues be it administration, language issues, logistics, personal problems, academics and so on. Each volunteered faculty have been assigned 4-5 students each year. The students are advised to meet the assigned faculty once a week and discuss their difficulty at various levels. Mentors also make sure that the assigned students meet them regularly on a one to one basis. In fact mentors bridges between the mentees, first year teaching faculty, counsellors, and parents in case a situation arises. During the time of counselling, opportunities are provided for the parents of the mentees to interact with the mentors. Personal contact numbers of the mentors are given to the students as well as parents for any further interaction in the future. Mentors meet once a month along with the teaching faculty to discuss the issues of their mentees and collectively take quality decisions and develop strategies to further help the students. Mentors continue to support the students in the following years too in case they are in need. Committee of mentors is chaired by Dean - Student Affairs and based on the input given by mentors, possible changes are implemented in the hostel, administration etc. and suggestions were forwarded to academics for addressing in a timely manner.

| Number of students enrolled in the institution | Number of fulltime teachers | Mentor : Mentee Ratio |
|--|-----------------------------|-----------------------|
| 695 | 96 | 1 : 7 |

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

| No. of sanctioned positions | No. of filled positions | Vacant positions | Positions filled during the current year | No. of faculty with Ph.D |
|-----------------------------|-------------------------|------------------|--|--------------------------|
| 123 | 81 | 6 | 6 | 6 |

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

| Year of Award | Name of full time teachers receiving awards from state level, national level, international level | Designation | Name of the award, fellowship, received from Government or recognized bodies |
|---|---|-------------|--|
| No Data Entered/Not Applicable !!! | | | |
| View File | | | |

2.5 – Evaluation Process and Reforms

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

| Programme Name | Programme Code | Semester/ year | Last date of the last | Date of declaration of |
|----------------|----------------|----------------|-----------------------|------------------------|
|----------------|----------------|----------------|-----------------------|------------------------|

| | | | | |
|---|--|--|------------------------------------|--|
| | | | semester-end/ year-end examination | results of semester-end/ year- end examination |
| No Data Entered/Not Applicable !!! | | | | |
| View File | | | | |

2.5.2 – Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

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

2.6 – Student Performance and Learning Outcomes

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

| |
|---|
| No Data Entered/Not Applicable !!! |
|---|

2.6.2 – Pass percentage of students

| Programme Code | Programme Name | Programme Specialization | Number of students appeared in the final year examination | Number of students passed in final year examination | Pass Percentage |
|---|----------------|--------------------------|---|---|-----------------|
| No Data Entered/Not Applicable !!! | | | | | |
| View File | | | | | |

2.7 – Student Satisfaction Survey

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

| |
|---|
| We have not carried out any formal Student Satisfaction Survey during the academic year 2016-17. However, informal discussions were held on various platforms and in general students are found to be satisfied by the overall institutional performance. |
|---|

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Promotion of Research and Facilities

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

| Type | Name of the teacher awarded the fellowship | Name of the award | Date of award | Awarding agency |
|---|--|-------------------|---------------|-----------------|
| No Data Entered/Not Applicable !!! | | | | |
| View File | | | | |

3.1.2 – Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other fellows in the Institution enrolled during the year

| Name of Research fellowship | Duration of the fellowship | Funding Agency |
|---|----------------------------|----------------|
| No Data Entered/Not Applicable !!! | | |
| View File | | |

3.2 – Resource Mobilization for Research

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

| Nature of the Project | Duration | Name of the funding agency | Total grant sanctioned | Amount received during the year |
|---|----------|----------------------------|------------------------|---------------------------------|
| No Data Entered/Not Applicable !!! | | | | |
| View File | | | | |

3.3 – Innovation Ecosystem

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

| Title of workshop/seminar | Name of the Dept. | Date |
|---|-------------------|------|
| No Data Entered/Not Applicable !!! | | |
| View File | | |

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

| Title of the innovation | Name of Awardee | Awarding Agency | Date of award | Category |
|---|-----------------|-----------------|---------------|----------|
| No Data Entered/Not Applicable !!! | | | | |
| View File | | | | |

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

| Incubation Center | Name | Sponsored By | Name of the Start-up | Nature of Start-up | Date of Commencement |
|--------------------------|------|--------------|----------------------|--------------------|----------------------|
| 0 | 0 | 0 | 0 | 0 | Nill |
| No file uploaded. | | | | | |

3.4 – Research Publications and Awards

3.4.1 – Ph. Ds awarded during the year

| Name of the Department | Number of PhD's Awarded |
|--------------------------|-------------------------|
| Physics | 2 |
| Chemistry | 3 |
| Aerospace Engineering | 3 |
| Earth and Space Sciences | 4 |
| Avionics | 2 |
| Mathematics | 1 |
| Humanities | 1 |

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

| Type | Department | Number of Publication | Average Impact Factor (if any) |
|---|------------|-----------------------|--------------------------------|
| No Data Entered/Not Applicable !!! | | | |
| View File | | | |

3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

| Department | Number of Publication |
|-------------|-----------------------|
| Mathematics | 1 |
| Humanities | 3 |
| Chemistry | 1 |

| | |
|-----------------------|---|
| Avionics | 3 |
| Aerospace Engineering | 1 |
| No file uploaded. | |

3.4.4 – Patents published/awarded/applied during the year

| Patent Details | Patent status | Patent Number | Date of Award |
|-------------------|---------------|---------------|---------------|
| 0 | Nil | 0 | Nil |
| No file uploaded. | | | |

3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

| Title of the Paper | Name of Author | Title of journal | Year of publication | Citation Index | Institutional affiliation as mentioned in the publication | Number of citations excluding self citation |
|------------------------------------|----------------|------------------|---------------------|----------------|---|---|
| No Data Entered/Not Applicable !!! | | | | | | |
| View File | | | | | | |

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

| Title of the Paper | Name of Author | Title of journal | Year of publication | h-index | Number of citations excluding self citation | Institutional affiliation as mentioned in the publication |
|------------------------------------|----------------|------------------|---------------------|---------|---|---|
| No Data Entered/Not Applicable !!! | | | | | | |
| View File | | | | | | |

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

| Number of Faculty | International | National | State | Local |
|-----------------------------|---------------|----------|-------|-------|
| Attended/Seminars/Workshops | 10 | 19 | 4 | 0 |
| Presented papers | 81 | 53 | 2 | 1 |
| Resource persons | 42 | 109 | 57 | 10 |
| No file uploaded. | | | | |

3.5 – Consultancy

3.5.1 – Revenue generated from Consultancy during the year

| Name of the Consultan(s) department | Name of consultancy project | Consulting/Sponsoring Agency | Revenue generated (amount in rupees) |
|-------------------------------------|--|------------------------------|--------------------------------------|
| Physics | Particle in cell Monte Carlo simulation of 300 mN SPT | LPSC | 1015000 |
| Mathematics | Development of Algebraic multi-grid for solving sparse linear system | VSSC | 280000 |
| No file uploaded. | | | |

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

| Name of the Consultan(s) department | Title of the programme | Agency seeking / training | Revenue generated (amount in rupees) | Number of trainees |
|---|---|---------------------------|--------------------------------------|--------------------|
| Dr R V Ramanan, Department of Aerospace Engineering | Introduction to Space Technology for EME Officers | Defence | 130000 | 10 |
| No file uploaded. | | | | |

3.6 – Extension Activities

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

| Title of the activities | Organising unit/agency/ collaborating agency | Number of teachers participated in such activities | Number of students participated in such activities |
|------------------------------------|--|--|--|
| No Data Entered/Not Applicable !!! | | | |
| View File | | | |

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

| Name of the activity | Award/Recognition | Awarding Bodies | Number of students Benefited |
|----------------------|-------------------|-----------------|------------------------------|
| 0 | 0 | 0 | 0 |
| No file uploaded. | | | |

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

| Name of the scheme | Organising unit/Agency/collaborating agency | Name of the activity | Number of teachers participated in such activites | Number of students participated in such activites |
|--------------------|---|----------------------|---|---|
| 0 | 0 | 0 | 0 | 0 |
| No file uploaded. | | | | |

3.7 – Collaborations

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

| Nature of activity | Participant | Source of financial support | Duration |
|------------------------------------|-------------|-----------------------------|----------|
| No Data Entered/Not Applicable !!! | | | |
| View File | | | |

3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

| Nature of linkage | Title of the linkage | Name of the partnering institution/ industry /research lab with contact details | Duration From | Duration To | Participant |
|-------------------|----------------------|---|---------------|-------------|-------------|
| 0 | 0 | - | Nill | Nill | 0 |

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

| Organisation | Date of MoU signed | Purpose/Activities | Number of students/teachers participated under MoUs |
|-------------------|--------------------|--------------------|---|
| 0 | Nil | 0 | 0 |
| No file uploaded. | | | |

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

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

| Budget allocated for infrastructure augmentation | Budget utilized for infrastructure development |
|--|--|
| 590000000 | 285893825 |

4.1.2 – Details of augmentation in infrastructure facilities during the year

| Facilities | Existing or Newly Added |
|------------------------------------|-------------------------|
| No Data Entered/Not Applicable !!! | |
| View File | |

4.2 – Library as a Learning Resource

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

| Name of the ILMS software | Nature of automation (fully or partially) | Version | Year of automation |
|---------------------------|---|-------------|--------------------|
| Koha | Fully | 3.02.05.000 | 2011 |

4.2.2 – Library Services

| Library Service Type | Existing | Newly Added | Total |
|------------------------------------|----------|-------------|-------|
| No Data Entered/Not Applicable !!! | | | |
| View File | | | |

4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

| Name of the Teacher | Name of the Module | Platform on which module is developed | Date of launching e-content |
|---------------------|--------------------|---------------------------------------|-----------------------------|
| 0 | 0 | 0 | Nil |
| No file uploaded. | | | |

4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

| Type | Total Computers | Computer Lab | Internet | Browsing centers | Computer Centers | Office | Departments | Available Bandwidth (MBPS/GBPS) | Others |
|----------|-----------------|--------------|----------|------------------|------------------|--------|-------------|---------------------------------|--------|
| Existing | 792 | 307 | 731 | 14 | 110 | 148 | 213 | 1 | 0 |

| | | | | | | | | | |
|-------|-----|-----|-----|----|-----|-----|-----|---|---|
| Added | 37 | 4 | 36 | 0 | 19 | 1 | 13 | 0 | 0 |
| Total | 829 | 311 | 767 | 14 | 129 | 149 | 226 | 1 | 0 |

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

| |
|--------------|
| 1 MBPS/ GBPS |
|--------------|

4.3.3 – Facility for e-content

| Name of the e-content development facility | Provide the link of the videos and media centre and recording facility |
|--|---|
| Audio Visual Lab | https://www.iist.ac.in/departments/humanities-lab#22222 https://drive.google.com/file/d/1e5CUymHIdFInO3M6oixNr8Ty1sOrmOnN/view?usp=sharing |

4.4 – Maintenance of Campus Infrastructure

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

| Assigned Budget on academic facilities | Expenditure incurred on maintenance of academic facilities | Assigned budget on physical facilities | Expenditure incurred on maintenance of physical facilities |
|--|--|--|--|
| 14400000 | 9504008 | 16900000 | 21231449 |

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

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. The Computer System Group manages the campus network, servers and other infrastructure and handles computer-related maintenance. Software Support Group (SSG), led by a team of IT professional provides various software services and technical assistance in the institute. The finance and accounts department, with its designated head and staff, cater to the financial aspects of the Institute. The institute has a medical clinic, with round the clock presence of a doctor and nurses to cater to any day-to-day medical requirements/emergencies. With its head (Dean Academics) and support staff, the Academic Section caters to the admission to graduate, postgraduate, and Ph.D. courses and conduction of examinations, etc. The hostel department maintain the hostels and manage day-to-day activities with its head and associated staff. 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. A hostel committee constituted of faculty, students, and the hostel head addresses various hostel-related issues such as water supply, pest control in hostels, etc. Several administrative officers cater to the general administration of the Institute, which includes general upkeep and janitorial maintenance of the Institute. The Institute also employs a full-time counselor to guide students and staff of the Institute to achieve their goals. The counselor also addresses mental health issues and workload issues at a very personal level. The sports facilities and activities of the institute are administered through a sports committee consisting of faculty,

students, and physical education instructors. Through the help of the instructors, the committee is also responsible for the maintenance and running of the day-to-day sports-related activities of the Institute and conducting the annual sports day. The cultural and other technical activities carried out by students are monitored and guided by a cultural committee similarly. 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. 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. The purchase and maintenance of the lab equipment, etc., is facilitated through the purchase and stores department. All the research and development activities of the institute are monitored and facilitated by the deans research and development. Computer Systems Group manages and maintains computer systems, networking, and related electronic infrastructure in IIST for provisioning and facilitating IT and non-IT services.

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

| | Name/Title of the scheme | Number of students | Amount in Rupees |
|--------------------------------------|--------------------------|--------------------|------------------|
| Financial Support from institution | DOS Assistanceship | 945 | 41080400 |
| Financial Support from Other Sources | | | |
| a) National | Nil | 0 | 0 |
| b) International | Nil | 0 | 0 |
| View File | | | |

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

| Name of the capability enhancement scheme | Date of implemetation | Number of students enrolled | Agencies involved |
|---|-----------------------|-----------------------------|-------------------|
| No Data Entered/Not Applicable !!! | | | |
| View File | | | |

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

| Year | Name of the scheme | Number of benefited students for competitive examination | Number of benefited students by career counseling activities | Number of students who have passed in the comp. exam | Number of students placed |
|-------------------|--------------------|--|--|--|---------------------------|
| Nil | Nil | Nil | Nil | Nil | Nil |
| No file uploaded. | | | | | |

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

| Total grievances received | Number of grievances redressed | Avg. number of days for grievance |
|---------------------------|--------------------------------|-----------------------------------|
| | | |

| | | |
|---|---|-----------|
| | | redressal |
| 2 | 2 | 90 |

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

| On campus | | | Off campus | | |
|---|---------------------------------|---------------------------|-------------------------------|---------------------------------|---------------------------|
| Name of organizations visited | Number of students participated | Number of students placed | Name of organizations visited | Number of students participated | Number of students placed |
| No Data Entered/Not Applicable !!! | | | | | |
| View File | | | | | |

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

| Year | Number of students enrolling into higher education | Programme graduated from | Department graduated from | Name of institution joined | Name of programme admitted to |
|---|--|--------------------------|---------------------------|----------------------------|-------------------------------|
| No Data Entered/Not Applicable !!! | | | | | |
| View File | | | | | |

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

| Items | Number of students selected/ qualifying |
|--------------------------|---|
| NET | 0 |
| SET | 0 |
| SLET | 0 |
| GATE | 0 |
| GMAT | 0 |
| CAT | 0 |
| GRE | 0 |
| TOFEL | 0 |
| Civil Services | 0 |
| No file uploaded. | |

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

| Activity | Level | Number of Participants |
|---|-------|------------------------|
| No Data Entered/Not Applicable !!! | | |
| View File | | |

5.3 – Student Participation and Activities

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

| Year | Name of the award/medal | National/ International | Number of awards for Sports | Number of awards for Cultural | Student ID number | Name of the student |
|------|-------------------------|-------------------------|-----------------------------|-------------------------------|-------------------|---------------------|
| 2016 | Nil | Nil | Nil | Nil | Nil | Nil |
| 2017 | Nil | Nil | Nil | Nil | Nil | Nil |

No file uploaded.

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

Student Activities Board (SAB) IIST Students activities board is the apex body under the chairmanship of Dean Students Activities, for streamlining the student activities of IIST. There are four sub-committees' functions under the Students Activities Board. 1. Sports Committee - One faculty member heads the committee and students nominate one representative each from all batches of undergraduate, post-graduate and doctoral students. This committee oversee the organization of various sports activities, competitions, selection of students for inter-collegiate events, maintaining the sports infrastructure, organization of Institute Gym etc. The committee reports to SAB periodically with its regular reports. 2. Canteen and Hostel Committee - One faculty member heads the committee and students nominate one representative each from all batches of undergraduate, post-graduate and doctoral degree programs. The committee periodically review the canteen and hostel facilities, canteen menu, housekeeping etc with the help of students and suggest adequate measures for improvement and correction. 3. Technical Committee - One faculty member heads the committee and students nominate one representative each from all batches of undergraduate, post-graduate and doctoral degree programs. The committee encourages and initiates student projects in science and technology areas, facilitates and enhances various science and technology activities like innovation centre, technical clubs etc. The committee oversees the organization of IIST Inter-collegiate national student's technical fest named "Conscientia" every year. It also discusses and recommend students for various inter-collegiate events in India and abroad. 4. Cultural Committee - to promote and encourage the cultural and literary activities of students of IIST, a cultural sub-committee has been constituted under the chairmanship of a faculty member and student representatives from various batches. The committee is responsible for organizing annual inter-collegiate National Cultural Fest named "Dhanak" every year. The committee also plans various cultural events, and literary competitions and select best programs / events for inter-collegiate events. Student Clubs: IIST students organizes various clubs named, Quiz Club, Aero Club, Nano-Satellite Club, FOSS Group, Eco Club, Photography Club, Movie and Performing Arts Club, Astronomy Club, Music Club, Model United Nations Club etc. Social outreach clubs like Nirmaan and Panacea are also functioning under student committees. Student Houses: All extracurricular activities are conducted based on various student houses. Student houses are titled as, Akashganga, Devayani, Kritika, Sharmishta, Hamsadhwani etc. Inter-house competitions are conducted for sports, cultural and literary activities. Academic Bodies: Students are members of class committees of each class along with those teachers who take classes during that semester. The class committees meet twice a semester and discuss about the performance of the students and the progress of lectures. Internal Complaints Committee: Internal Complaints Committee (ICC) is re-constituted (Office Order No. 449 dated 05.08.2016) as under to deal with the complaints relating to Sexual harassment at work place. Three student's nominees are representing different batches in the committee along with few members from faculty and staff of IIST Women Cell: Students are members of the women cell of IIST Anti-Ragging committee: Students are members of the anti-ragging committee of IIST.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

No

5.4.2 – No. of registered Alumni:

0

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

0

5.4.4 – Meetings/activities organized by Alumni Association :

Annual Alumni Meet held on 14.09.2016 at IIST campus.

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

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

The organizational structure of IIST is truly decentralized in nature. The vision of the Indian Institute of Space Science and Technology is to establish a world-class institute offering Space Technology and Space Science educational programs which are integrated with basic and applied research for meeting the requirements of the Indian Space Programme. Research forms a significant part of this vision. The main aim is to seamlessly integrate Research and Development with academics and encourage excellence in the Institutes research activity in areas relevant to space science, space technology and space applications. Towards achieving this Research goal, IIST is creating its own full-fledged infrastructure to develop a vibrant research atmosphere. It is also encouraging and promoting faculty in research activities to offer post-doctoral, doctoral programs and wherever necessary, draw upon research the rich expertise already available with the Indian Space Research Organization. The Director provides overall guidance to academic programs and takes strategic administrative decisions of the institute. The Director sets up necessary committees to conduct academic programs and to 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 (RD) is responsible for Research and Development activities at the institute level. Research Council (RC) chaired by Dean (RD) monitors the research progress and other academic matters of Faculty members and research scholars. Technical Review Committee (TRC) has the mandate to review the program of research projects in the institute funded by IIST and other external agencies. Faculty members coming up with project proposals is discussed here. IIST Research Board is formed to enable, promote and nurture innovative research activity meeting the requirements and challenges of the Indian Space Programme. The Dean (Students activities) is responsible for overseeing the activities of students. The institute has many clubs as Aero Club, Avionics club, etc., which this office guides. In addition, this office oversees Conscientia, the annual technology and astronomy festival of the institute. Annual cultural festival Dhanak is also organized by this office. Faculty members who come with innovative technologies are encouraged to apply for patents from Dean (IPR) office. Decentralization of selection of IIST-ISRO projects and decentralization of PhD selection of institute funded research scholars is followed in our institute. All the departments are involved in projects and research of national and international importance. Research in departments is through funded projects by IIST as well as government agencies such as the Department of Science and Technology (DST), apart from the regular Ph.D. programs. IIST funds research projects of the faculty members while encouraging active collaborations with ISRO units and institutes and research laboratories of national importance. The

research projects implemented in IIST campus are: (i) IIST Research Projects (i) IIST-ISRO Projects and (ii) IIST Fast-Track Research Projects for newly jointed faculty (iv) Externally Funded Projects and (v) Individual Award/ Scheme Research Funds (INSPIRE Programme, NPDF, Young Scientist Award etc.)

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

Yes

6.2 – Strategy Development and Deployment

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

| Strategy Type | Details |
|---------------------------------|---|
| <p>Research and Development</p> | <p>IIST has developed state-of-the-art laboratories and research centers of excellence. Research at its highest level calls for constant upgradation of instruments and facilities. Faculty members are encouraged to do collaborative research with other ISRO centers and institutes of national importance. Faculty members get externally funded projects from various funding agencies such as DAE, DRDO, DST, DBT, etc. Fast track projects and seed money provided for new faculty members also help enhance the institutes research culture. Advanced Space Technology Development Cell (ASTDC) in collaboration with Dean RD and the project review committee reviewed thirty-six ongoing ISRO-IIST projects and ten new projects.</p> |
| <p>Admission of Students</p> | <p>A meritocratic admission policy with predefined minimum standards is formulated for admitting students into IIST at UG, PG, Doctorate, Post-Doctorate levels. For UG admission, IIST Admission Rank List is prepared from among those who have registered online for IIST admission and based on the All India rank prepared by CBSE giving 60 percentage weightage to the score in JEE (Main) examination and 40 percentage weightage to the normalised score in Class 12th qualifying examination. For PG admissions in Engineering/Science departments, a GATE score is mandatory. Applications are shortlisted depending upon the GATE Score and students are admitted based on the interview/rank list. A hybrid policy is followed by respective departments. For engineering/science department's admission to Ph.D. are based on departmental norms/interview. For Humanities Department, admission to Ph.D. are based on score in UGC/JRF</p> |

| | |
|---|---|
| | <p>score. Admission of post-doctoral studies is purely based on the interview that respective departments hold.</p> |
| <p>Industry Interaction / Collaboration</p> | <p>A company/RD/Management, registers with the Placement Office, through an online job portal for placement and internship. Upon registration, the Company will receive a Log-In ID and Password to input more details. The Placement Office will appropriately coordinate to take the process further. The internship period for both B.Tech and M.Tech. Programmes usually last for two months, tentatively from May to July, every year. However, internships that require more than two months, for select M.Tech Programmes, are worked out in line with the Institute policies and guidelines. The Company/Organization would contact the Placement Office for further details and discussions. This year, 11 M. Tech students did their internships in various companies. 4 B.Tech students and 13 M.Tech students were placed in companies. The Placement office conducted 8 invited talks/workshops for the benefit of students.</p> |
| <p>Human Resource Management</p> | <p>The quality improvement strategies in human resources across the institute are designed to achieve the desired objectives of IIST and provide quality research output for ISRO and space related activities. Faculty are encouraged to publish in peer reviewed international journals and conferences. They are encouraged to collaborate with leading national/international institutions to become best known in their area of research. A fair and transparent policy for policy promotion of faculties is followed based on merit. Annual performance appraisal report is required to be filled in by the faculty in which they are required to record their achievements every year.</p> |
| <p>Examination and Evaluation</p> | <p>In our institute, a continuous assessment system is practiced for students that carry various components like quizzes, assignments, mini-projects and final examinations. The evaluation is an integral and important part of the teaching-learning process. In IIST the process of continuous assessment is practiced evaluating the</p> |

scholars. It is done through quizzes, class tests, home assignments taken periodically, and semester work and course project work taken based on the nature of the course. A few courses also take open-book examinations that allow students to practice referring books and answering. The complete evaluation is purely internal. It is the course teachers responsibility to evaluate the students perfectly by knowing the student's understanding of the topics they taught and giving a fair evaluation. The unique feature of the evaluation system is that students are allowed to see answer scripts of quizzes and end-semester examinations. If the students are not satisfied with the marks or any other manual errors are found, the student can contact the faculty members and clarify it. So this type of evaluation provides transparency in the evaluation system and reduces the reevaluation process after declaring the results. This is one of the best systems followed in which the students are satisfied with their results and the re-evaluation procedure is avoided.

Teaching and Learning

Students are asked to do term/mini projects as part of the internal assessment in many courses. The term project can be an understanding of a research paper or demonstrating a concept or modeling and simulations or a combination. The term project enables students to get a broader perspective, which helps to look beyond the classroom examples and apply the concepts learned in the course. Students are taken to visit rocket propulsion facilities in various ISRO centers.

Curriculum Development

Curriculum Development in the institute is framed primarily to mould students with sufficient rigor in the fundamentals and also to meet the student skill requirement for research and work in cutting-edge technologies. Curriculum revision is progressively carried out typically after three years. Every department prepares a curriculum modification/updation incorporating feedbacks from Alumni, reputed Educationalists, and Industry partners. The departmental committee incorporates the suggestion and

| | |
|---|---|
| | <p>implementation through discussions in a BoS (Board of Studies). This is discussed and ratified and approved through an Academic Council. Also, periodic inclusion of specific electives and minor modifications are incorporated into the curriculum through internal departmental discussions with concurrence from BoS as well as Academic Council.</p> |
| <p>Library, ICT and Physical Infrastructure / Instrumentation</p> | <p>The library operations are automated using Koha – open source software with full-fledged Web OPAC. Library subscribed to 5000 e-journals and e-books with IP-based access. All subscribed e-resources were showcased using a library portal. Library portal developed with details and links to various services provided by the library. Subscribed and open e-resources were made available for the user community for accessing remotely from anywhere at their convenience. Spacenet connection established in the library to access resources from other ISRO/DoS Centres. The documentation facility started in the library during this period. IIST signed MoU with INFLIBNET to deposit a soft copy of Ph.D. theses to the Shodhganga repository. Library subscribed to similarity checking software (anti-plagiarism tool) during the reporting period. Current Awareness Services are provided through JTOCs and also through the library portal. Library orientation for new students and faculty and training programs on various library tools for users arranged in the library.</p> |

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

| E-governance area | Details |
|---------------------------------|--|
| <p>Planning and Development</p> | <p>The Institute uses electronic media efficiently for planning and development of various activities. Internet is used to give information to the outside world with links available in IIST website (www.iist.ac.in) (i) admission, (ii) opportunities available, (iii) showcasing events like seminars, conferences, workshops, invited lectures (iv) academic calendar (v) organizational structure (vi) research activities. In addition, institute uses intranet efficiently for (i) examination purposes (ii) attendance (iii) feedback of students</p> |

| | |
|-------------------------------|--|
| | (iv) library (v) accounts (vi) various forms to be used in institute related to day to day functioning of institute for faculty/staff/students. |
| Administration | For administration purposes, we have a software COWAA (Computerized Working in Administrative Areas). This application is set up within a dedicated network for smooth administrative management. This software contains modules related to the processes in Administration, Purchase Stores, Accounts, Finance, and Payroll. |
| Finance and Accounts | Finance and Accounts use the following three software applications for its operations :- 1. Tally ERP 9 - This is a standard accounting software used in the Accounts Department for recording day to day transactions and for generation of all related MIS reports 2. COWAA - This is an ERP software developed in-house (ISRO) which enables processing of indents, accounting and budgetary control. 3. WINMAN - This is a standard software used for processing and filing of TDS / TCS returns |
| Student Admission and Support | Institute efficiently uses our website to publish all details related to admission in UG, PG, Doctoral and Post-Doctoral programmes. All the information and updates related to admission in these programmes are published in website (http://admission.iist.ac.in) in time-to-time. UG admission: UG and dual degree candidates who wish to join the Undergraduate and Dual Degree Programmes offered must apply separately to IIST through the online application portal (http://admission.iist.ac.in). The successfully registered candidates will be given a system generated IIST Registration Number. Candidates need to specify a password. IIST Admission Rank list is generated only for those candidates who have registered online for the admission to IIST and satisfying all the eligibility criteria as given in Information Brochure. CBSE prepares All-India rank list giving 60 weightage to the score in JEE (Main) examination and 40 weightage to the normalised score in Class 12th qualifying examination. Rank list are |

prepared for candidate based on position in the All-India Rank list (including category rank) prepared and those published by CBSE. The marks secured by the candidate in JEE (Advanced) 2016 examination is used only for deciding the eligibility to admission to IIST and not for preparing IIST admission rank list. PG admission: Online application can be made through <https://admission.iist.ac.in/>. The applicant has to first register with the Name, valid Email ID and Mobile number, and a new Password that will be used for further login to the Admission Portal. A valid Registration No. is created to candidate on successful user creation. This Registration No. and the Password that have been set by the candidate have be used for completing the registration process. The profile can be edited till the branch registration is saved. Candidates have to login to view the branches and set the preference for various programmes. Additionally, the candidate may apply for other programmes (branches) for which the qualifying degree is equivalent/ related to as the case may be by selecting the appropriate programmes under other programmes. Final decision on the eligibility is decided by the concerned department after the last date of application. Candidate has to select branches and submit, a fee registration number would be generated. The application fee payment can be made through the bill desk with the registration number. Short list / Rank list will be published by a specified date for all PG programmes. The candidate in the allotment list has to remit the stipulated fees on or before the specified date by IIST to confirm their candidature to the program. Any change in the aforementioned schedule would be notified in the website.

Examination

For examination purpose, we have an exclusive software i-campus in our intranet. The marks scored by students in quiz-1, quiz 2, internals, and end-semester exams are entered in icampus software. Attendance marking for examination/course is also entered in this software. Final grading of students and publication of results is also done online through this software.

6.3 – Faculty Empowerment Strategies

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

| Year | Name of Teacher | Name of conference/ workshop attended for which financial support provided | Name of the professional body for which membership fee is provided | Amount of support |
|---|-----------------|---|---|-------------------|
| No Data Entered/Not Applicable !!! | | | | |
| View File | | | | |

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

| Year | Title of the professional development programme organised for teaching staff | Title of the administrative training programme organised for non-teaching staff | From date | To Date | Number of participants (Teaching staff) | Number of participants (non-teaching staff) |
|---------------------------|---|---|-----------|---------|--|--|
| 2016 | Nill | Nill | Nill | Nill | Nill | Nill |
| 2017 | Nill | Nill | Nill | Nill | Nill | Nill |
| View File | | | | | | |

6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

| Title of the professional development programme | Number of teachers who attended | From Date | To date | Duration |
|---|------------------------------------|-----------|---------|----------|
| International workshop on Remote sensing analysis-India program at CSR- IITB | 1 | Nill | Nill | Nill |
| No file uploaded. | | | | |

6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

| Teaching | | Non-teaching | |
|-----------|-----------|--------------|-----------|
| Permanent | Full Time | Permanent | Full Time |
| 6 | 1 | 2 | 0 |

6.3.5 – Welfare schemes for

| Teaching | Non-teaching | Students |
|--|---|--|
| There are welfare schemes for medical as per the government regulations. Employee including their family is covered under the Contributory Health Services Scheme. | There are welfare schemes for medical as per the government regulations. Employees including their family is covered under the Contributory Health Services Scheme. | Medical Insurance, Book grant and Assistantship as per IIST/DOS norms are available for all eligible students. |

Different welfare schemes like VAST, VISWAS, SAFE, Group Insurance, Leave Travel Concession (LTC), Professional Update allowance are available for teaching members.

SAFE (Scheme for Assistance to Families in Exigency) is Vikram A. Sarabhai Trust (VAST) as a welfare measure for the DOS/ISRO community. SAFE is a voluntary, contributory and multi-purpose welfare scheme to provide Financial Assistance in Exigency (FAE) to the beneficiaries. The beneficiaries are the employees (The Contributor) who opt to join this scheme and optionally, their family members (Spouse and Children). The exigencies include: The monthly contribution paid by the employee depends on the type of the scheme they opt for. The exigencies covered include death/permanent disability of contributor, Loss of eyes/limbs of contributor, Loss of salary due to prolonged sickness of contributor, Serious sickness of contributor or family members, Prolonged hospitalization of contributor or family members, Permanent disability of family members, Loss of eyes/limbs of family members. Contributors are also eligible to receive Residual Bonus at the time of superannuation or withdrawal from SAFE. VAST Insurance Scheme Whenever Accident Strikes a voluntary and contributory welfare

Different welfare schemes like VAST, VISWAS, SAFE, Group Insurance, Leave Travel Concession (LTC), Technical Update allowance are available for non-teaching members.

scheme to provide risk coverage for Death due to Accidents - anytime and anywhere in the world. The scope of coverage, generally includes death due to road / rail / air accidents, fire accidents, civil commotion, riots, natural calamities, accidents in work spots, etc., and excludes death due to intentional self-inflicted injury, suicide, insanity and natural deaths due to any disease / ailments. The scope of coverage, however, will be as prescribed by the terms and conditions of Group Personal Accident Policy taken with a reputed insurance company to cover to risk of Death due to Accident.

6.4 – Financial Management and Resource Mobilization

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

IIST conducts statutory financial audit by CAG empanelled Chartered Accountants. Apart from the financial audit, IIST is having regular audit from CAG and also internal audit conducted by the Department of Space.

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

| Name of the non government funding agencies /individuals | Funds/ Grnats received in Rs. | Purpose |
|--|-------------------------------|---------|
| Nil | 0 | 0 |
| No file uploaded. | | |

6.4.3 – Total corpus fund generated

| |
|---|
| 0 |
|---|

6.5 – Internal Quality Assurance System

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

| Audit Type | External | | Internal | |
|----------------|----------|--------|----------|------------------------------------|
| | Yes/No | Agency | Yes/No | Authority |
| Academic | No | Nil | No | Nil |
| Administrative | Yes | CAG | Yes | Department of Space Internal Audit |

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

applicable)

No. IIST doesnt have any affiliated/constituent colleges.

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

The institute is fully residential and all academic and administrative matters pertaining to the functioning of the institute are communicated to parents from time to time. This ensures association with parents and teachers of the institute.

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

No Data Entered/Not Applicable !!!

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

1. Modifications in B.Tech (Aerospace Engineering) and B.Tech (Avionics) syllabuses are made after obtaining inputs from alumni, industry, and other stakeholders. 2. An institute level broad curriculum framework for the total number of credits for UG, PG and dual degree programmes was prepared. 3. Digital initiatives initiated in institute with recording of talks by eminent speakers coming to the institute.

6.5.6 – Internal Quality Assurance System Details

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

6.5.7 – Number of Quality Initiatives undertaken during the year

| Year | Name of quality initiative by IQAC | Date of conducting IQAC | Duration From | Duration To | Number of participants |
|-------------------|------------------------------------|-------------------------|---------------|-------------|------------------------|
| 2016 | Nil | Nil | Nil | Nil | Nil |
| 2017 | Nil | Nil | Nil | Nil | Nil |
| No file uploaded. | | | | | |

CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

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

| Title of the programme | Period from | Period To | Number of Participants | |
|---|-------------|------------|------------------------|------|
| | | | Female | Male |
| UN International Day for Women and Girls in Science | 08/02/2017 | 08/02/2017 | 150 | 30 |
| Sensitization programmes for the girls in the age group of 8-18 years of Ananda | 28/12/2017 | 28/12/2017 | 30 | 3 |

Nilayam, an orphanage in Trivandrum about the rights of children

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

Percentage of power requirement of the University met by the renewable energy sources

Decision to install Solar Power Plan approved

7.1.3 – Differently abled (Divyangjan) friendliness

| Item facilities | Yes/No | Number of beneficiaries |
|--|--------|-------------------------|
| Physical facilities | Yes | 11 |
| Provision for lift | Yes | 11 |
| Ramp/Rails | Yes | 11 |
| Braille Software/facilities | Yes | 0 |
| Rest Rooms | Yes | 11 |
| Scribes for examination | Yes | 0 |
| Special skill development for differently abled students | Yes | 11 |
| Any other similar facility | Yes | 10 |

7.1.4 – Inclusion and Situatedness

| Year | Number of initiatives to address locational advantages and disadvantages | Number of initiatives taken to engage with and contribute to local community | Date | Duration | Name of initiative | Issues addressed | Number of participating students and staff |
|---|--|--|------|----------|--------------------|------------------|--|
| No Data Entered/Not Applicable !!! | | | | | | | |

[View File](#)

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

| Title | Date of publication | Follow up(max 100 words) |
|----------|---------------------|--|
| Handbook | 30/11/2016 | A handbook with all rules, regulations, code of conduct, and details of academic programmes are given to parents and students at the time of counselling. The same is published in IIST website also |

7.1.6 – Activities conducted for promotion of universal Values and Ethics

| Activity | Duration From | Duration To | Number of participants |
|---|---------------|-------------|------------------------|
| No Data Entered/Not Applicable !!! | | | |
| View File | | | |

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

• World Environment day was celebrated on June 8th 2016. It was organized by the eco club of IIST. Dr. K Vasuki IAS, Executive Director, Suchitwa Mission, Govt. of Kerala inaugurated the programme and Director, IIST presided over the function. • Swachh Bharat Abhiyan Implementation Committee constituted and inaugurated on 27th April 2016 • Cleaning drives organized in three major academic blocks in the Institute by faculty and students - 27th April 2016 • On 25th October 2016, a long wall was identified for the students to paint their views and ideas on cleanliness and hygiene. • On 25th and 26th October 2016, special cleaning drives were organised to clean the entire campus. • On 27th October 2016, a training programme was organised on Cleanliness and Housekeeping to the cleaning staff - Smt Bindu , Kerala Tourism Development Corporation (KTDC) • Visit of Students and faculty members to Ananda Nilayam orphanage in Manacaud by IIST on 30th October 2016 where they sensitized the inmates who are basically girls in the age group of 4-18 years on personal hygiene.

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

Describe at least two institutional best practices Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link Best Practise - 1 1. Title of the practice: INDUCTION PROGRAMME 2. The context that required the initiation of the practice (100 - 120 words) The students joining the institute come from different socio-economic and educational backgrounds. To facilitate their formation and instil in their minds the vision, mission, values and activities of the institute, IIST conduct a very detailed induction programme. Students get a clear idea regarding their journey in IIST. It also helps them break the ice and get inducted into the one big 'IIST family' rather than confining themselves to a department identity. This practice has been existent in IIST since 2011 even before it was established as a norm by AICTE. 3. Objectives of the practice (50 - 60 words) ? • To break the ice and familiarize students with IIST and its different departments and units. • To facilitate the imbibing of institute vision, mission, core values and activities. • To provide information and support on issues relevant to new students and also to facilitate the easing of transition into the life of IIST as well as encouraging academic and personal success. 4. The Practice (250 - 300 words) A three day intensive induction program was offered for the B.Tech. first semester students by the Department of Humanities from September 4-6, 2016. The sessions consist of informational and motivational sessions combined with outdoor and indoor activities. The resource persons for these sessions include the teachers, former teachers, senior student representatives, alumni members, administrative staff representatives and librarian. Some of the workshops were handled by external trainers in the field - Dr AS Manoj, Faculty, ICT Academy of Kerala and Dr Sanjay Mattoo, All India Radio and the topics covered include Self Esteem and Motivation, Positive Attitude, Goal Setting, and Creativity. The program had classroom sessions and outdoor training activities. Special emphasis is given to ensure that all the aspects related to the campus life, including department activities, student clubs, environment clubs, IQAC etc. are being addressed during this three-day long programme. It also has sessions that help the students to mingle with each other and get familiarized with all sections of the campus. 5. Obstacles faced if any and strategies adopted to

overcome them The admission process will continue for a few days even after the initial admissions happen. Hence, at times, a few students will leave if they get allotment to their preferred option. Likewise, students will also join later through the same process. So, these late arrivals will miss this induction programme which is offered at the beginning of each session. 6. Impact of the practice (100 - 120 words) Induction programme provide information and support on issues relevant to new students and also to facilitate the easing of transition into the life of IIST as well as encouraging academic and personal success. It gives clarity to their roles and introduces them to all the possibilities they can explore in fulfilling their potential and career aspirations as well as to aid personality development. It also helps to break the inhibitions and set aside all the fear among the students who join IIST from all over the country and from different socioeconomic background. 7. Resources required ? Seminar Hall ? Smart Class Rooms ? Projectors, Sound system ? Resource Persons Best Practise - 2 1. Title of the practice: Conducting "Young Talent Nurture" (YTN) programme. 2. The context that required the initiation of the practice (100 - 120 words): Govt. of India encourages each academic institute to conduct different kinds of outreach programme, especially for the locals, to help improve the social, economic and educational status of people using the available resources of the institute. As part of such outreach programme Dept. of Mathematics, IIST conducted YTN progarmmes every year for the benefit of undergraduate or post graduate students, especially from local college/universities and neighboring states aiming to help the B.Sc. or B.Tech students have strong foundation in mathematics. 3. Objectives of the practice (50 - 60 words) : As there are many colleges and universities where the students from science and technology background, due to many reasons, do not get proper guidance to build up strong Mathematical foundation which is essential for building carriers in science and technology, Dept. of Mathematics, IIST decided to conduct summer programmes in Mathematics for the interested students so that they can be guided on how to grow the required mathematical insight and rigor. 4. The Practice (250 - 300 words): Aiming mainly for the B.Sc./B.Tech students Department of Mathematics, IIST conducted YTN, a yearly one-month long summer programme in Mathematics, where we used to teach students the basics of College/University Mathematics. The main aim was to • Familiarize the students the basics of College/University Mathematics. • Explain to the students how to study and feel those, how to see the critical parts of topics which students tend to miss and how to raise questions accordingly. • How to proceed to solve the raise questions --- though examples, insights, and rigor • Build the problem-solving attitude 5. Obstacles faced if any and strategies adopted to overcome them: As the students attending YTN were mainly from very poor background, we had to provide financial assistance to them to attend the YTN programme. We also preferred to provide them the proper textbooks from where they should learn, since in local colleges and universities many local books are being followed which is not up to the standard and imparts ill-knowledge. As such kind of assistance ship requires good amount of funding, many a times we faced difficulty to get the required fund. We also though that except IIST many other institutes will help us to conduct the programme in deferent level of B.Sc./B.Tech students, however no other institute took interest in it. 6. Impact of the practice (100 - 120 words): There were many students who contacted us at a later stage of their life and informed us on how the programme helped them in their carrier. Even cases are there where students from Physics major moved to Mathematics major due to the Mathematical strength acquired from our programme. Many students during their M.Sc. contacted us to guide them to choose their career as they felt that we can give proper guidance. Even the college and university teachers contacted us to know about our future programmes as their students got highly benefitted out of YTN. 7. Resources required: A few faculty members from other institutes who are having excellent pedagogy skills, some good textbooks and

lecture notes.

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

7.3 – Institutional Distinctiveness

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

To achieve the vision of the institute of creating a unique learning environment nurtured by innovation and creativity, to promote centres of excellence and to network with national and international institutions of repute, Research has been given utmost importance since its inception. IIST utilizes a significant proportion of its resources in supporting the research by its faculty members under various schemes under watchful eye of Research Council which is Chaired by Dean (RD). These schemes are Fast Track for newly joined faculty, IIST Projects and IIST-ISRO Projects, the later being coordinated by Advanced Space Technology Development Cell (ASTDC), which was established in September 2015. IIST faculty were engaged in 48 projects in collaboration with and of interest to various ISRO centers. Institute also promotes its faculty members to take up individual, collaborative and interdisciplinary extramural research projects, funded mainly by DoS, MoES, UGC, ICSSR etc. The portion of our research budget saw a steady growth, and in the last one year we have received approval for grants to the tune of 357 lakhs. More than 143 referred research publications came out in the reporting period from the faculty, students and research scholars. 2 new patent were filed, thus taking cumulative patent applications to 12. To further research activities, fifteen national level workshops and conferences were conducted in various areas of space science, space technology, social science and humanities. Being the academia support to Indian space program, IIST has very close linkage with various centers and units of ISRO which provides unique opportunity to our students to undertake internships and innovative projects within IIST and in different ISRO centers. 3 centres of excellence have been established in different areas of space science, space technology and science. They are Advanced Propulsion and Laser Diagnostics (APLD), Virtual Reality Lab and Center of Advance Research in Nanoscience and Technology were fully functioning in IIST IIST views international collaboration as a major step in enhancing our research competence and had research collaboration with several institutes of national and international repute. There was an addition of 3 international MoU with University of Cambridge, University of Colorado and Max Planck Institute for Radio Astronomy (Bonn, Germany). Every year one student of B.Tech. Aerospace Engineering is admitted for a Master of Science degree in Space Engineering at the Graduate Aerospace Laboratories of CalTech (GALCIT), California, USA. In the reporting year, JPL had offered an 8 week internship programme for three students of B.Tech of each branch viz, Aerospace Engineering, Avionics and Physical Sciences/Engineering Physics who are in their third year. These students received a generous stipend from JPL which covered their entire expenses. Other programs included a fully funded summer research internship in the University of Manitoba, Canada organised by the Mitacs Globalink Foundation, Canada, 2016 Visiting Undergraduate Research Programme (VURP) by CALTECH research internship at Molonglo Observatory Synthesis Telescope (MOST), sponsored by Swinburne University of Technology and Academic Development Programme at National Central University in Taipei, Taiwan,

Provide the weblink of the institution

8.Future Plans of Actions for Next Academic Year

The institute is geared to change the name of the BTech (Avionics) to BTech Electronics and Communication Engineering (Avionics) for all students on the institute roll in the next Academic year (2017-2018) by following well laid procedures and taking the recommendation from Academic Council and approval from Board of Management. The institute is also keen to introduce "Choice Based Credit System" for UG students as well as option for UG students to "Audit" a course without credit registration in the next Academic year. The above will provide much needed choice and flexibility that would make the learning process "exciting" for our students.