CHAPTER 2: ACTION TAKEN REPORT ON RECOMMENDATIONS OF ANNUAL QUALITY ASSURANCE REPORT OF OCTOBER 2020

In July 2014, the Institute Quality Assurance Cell (IQAC) was founded. In July 2015, the first AQAR (Annual Quality Assurance Report) was released. It was forwarded to all of the Institute's Academic Heads of Departments. The IAMC (Institute Academic Management Committee) meeting also examined the recommendations and possible action measures. This year, the same procedure was followed. Furthermore, all departments were expected to produce a report on the work they had done as part of the implementation process for various recommendations. Following is the action taken report on the recommendations of AQAR-2020 report. The outcome is given in AQAR-2021 report.

Recommendation 1

Project Based Learning (PBL) component to be emphasized in Odd Semester Courses:

In almost every subject PBL component has been included directly or as a part of TA. A weightage of about 7 marks (7%) is given for PBL component in the evaluation. Additionally, all PBL components are mapped directly to the employability, based on NAAC central team's input.

Recommendation 2

New labs for conducting advanced experiments in various disciplines to be developed:

Department of ECE: The department has added/up graded equipment in the labs. for conducting advance experiments as below:

- Established "Centre for Innovation in VLSI and Smart System" in Sector – 62 Campus.
- Project Lab. 1 established in Sector – 128 Campus.
- In Sector – 128 Campus "Advanced Research Facility for Antenna Measurements" has been added.
- Up graded software and hardware in the existing labs.

Department of CSE and IT: Following actions are taken by the department for adding new experiments and computational facilities:

- Revision of lab. Courses of M.Tech. Programmes.

- Installed NVIDIA DGX work station to improve research in PG and Ph.D. programmes as well as in B.Tech. Project work.

- Will establish new labs in near future.

Department of Biotechnology: Following actions have been taken by the department:

- Central instrumentation lab is being upgraded.

- New instruments have been procured including DSC, and RT-PCR. Few are in pipe-line for installation

Recommendation 3

Student intake for M.Tech. in ECE, CS & IT and in MBA programmes to be increased. Ph.D. enrolment numbers in ECE to be enhanced:

Departments have taken following actions to increase admission in P.G. Programmes:

Department of CSE and IT

- Able to secure numerous admissions through the "Study in India Cell" of Ed CIL in all of the five specialization of M.Tech. Programme but unable to run three specializations of the M.Tech. Programme due to ongoing COVID-19 pandemic.

- Added two new specializations namely CSE – AI and CSE – IOT

- Two specializations of M.Tech. CSE – IS and CSE – MT are dropped

Department of ECE

- Promoted M.Tech. Programme on social media.

- Poster for all M.Tech. Specializations were developed and sent to nearby Institutions.

- The department is enhancing research facilities and upgrading labs to attract admission seekers for M.Tech. & Ph.D. programmes.

JBS

Discussed in the faculty meeting and adopted a road map to improve admission to MBA and BBA programmes.

Recommendation 4

The ratio of journal papers/eligible faculty to be increased to 2.0:

The Institute is emphasizing on quality research and publications. The publication requirement is part of promotion policy which is up-dated periodically. To encourage researcher, the Institute has added policy for incentives to teachers, research scholars and students for research awards. Further Institute Research and Development Project Scheme (IRDPS) has also been implemented. Though in year 2020-21 target of 2.0 for the ratio of journal papers/eligible faculty could not be achieved, it is expected to improve research output in year 2021-22.

Recommendation 5

Joint supervision of M.Tech. Dissertations /Ph.D. theses amongst various disciplines to explore visible interdisciplinary approach in research output to be undertaken seriously:

Following actions have been taken by the departments for significant interdisciplinary research:

Department of CSE and IT

- Faculty members are being encouraged for research in interdisciplinary area involving faculty of other departments and industry.

- A research scholar who joined Ph.D. Programme in August 2020 is working in interdisciplinary area involving Prof. Anirban Pathak from Department of PMSE as joint supervisor.

- Another research scholar who joined Ph.D. Programme in January 2021 is also working in interdisciplinary area under joint supervision of Dr. Arti Jain, CSE and Dr. Dinesh Bisht, Mathematics.

- In M.Tech. Dissertations more than 95% students are opting for industrial projects and thus every one of them has a joint supervisor from industry.

Department of Biotechnology

Undertaken two R & D projects jointly with faculty as PI/Co-PI from the Department of Biotechnology and experts external organizations. And three PhD scholars are currently being undertaken in joint-supervision mode with internal faculty and scientists from other research organizations. The details are as given below:

Title of Collaborative work	Category of Collaborative work	PI	Co-PI	Period/Status
Bilateral Scientific & technology Cooperation between Republic of Egypt and Republic of India	Funded project Ministry of Science and Technology, Government of India	Prof. Pammi Gauba	Prof. Shoby El-Sohaimy, Egypt (External) Dr. Ashwani Mathur (Internal)	2020 - 2023
Nose to brain delivery of surface-modified drug loaded PLGA nanoparticles for management of Trigeminal Neuralgia	Funded project Indian Council of Medical Research (ICMR), Govt. of India	Dr. Shweta Dang	Prof. Pammi Gauba (Internal), Dr Amit Tyagi, INMAS, Delhi (External)	2020 - 2023
Nanoparticle based vaccine against Hepatitis E virus	Research-PhD	Prof. Sudha Srivastava	Dr. Baibaswata Nayak, Additional Professor, AIIMS, Delhi (External)	Ongoing
Nanocarriers for the therapeutics for effective drug delivery	Research-PhD	Dr. Shweta Dang	Dr Amit Tyagi, Scientist E, INMAS, Delhi (External)	Ongoing
Drug Delivery through Nanotechnology in Brain	Research-PhD	Dr. Shweta Dang	Dr Amit Tyagi, Scientist E, INMAS, Delhi (External)	Ongoing

Department of HSS and JBS

JBS and Department of HSS are collaborating on Ph.D. supervision.

Many departments are pursuing joint supervision for Ph.D. scholars while more efforts are required for interdisciplinary research and joint R& D projects.

Recommendation 6

Review articles in journals by faculty members to be contributed regularly.

The faculty members from all the departments have communicated review papers this year.

Recommendation 7 a

Important subjects like Data Structures and algorithms could be revised for the students in 6th semester for better placement:

The courses on Data Structures and Algorithms are revised in 6th/7th semester for selected week students after conducting a test for all students of 6th semester having CGPA <7.0. These classes are also open for other interested 3rd year students. The current placement status plainly reflects the impact of the same. According to the following data, students have got placement offers from notable companies this year:

S. No.	Company Name	Salary Package	Number of Students Placed
	Placement Status for JIIT CSE/IT Department - 2022 Batch		
	Top 5 Companies - Salary Package Wise		
1	Google India	INR 56.23 LPA	3
2	Adobe	INR 53.84 LPA	3
3	DE Shaw	INR 36.50 LPA	4
4	Intuit Inc	INR 32.82 LPA	7
5	Amazon	INR 32.40 LPA	1

Recommendation 7 b

Students from ECE & BT who are willing to go for CSE/IT area for placements, to be encouraged to opt for CSE/IT as minor specialization:

More than 180 ECE students have opted for CSE courses for minor specialization in CSE. Department of CSE and IT is cooperating to run, the courses for this additional teaching load considering interest of the students.

Choice of elective courses (CSE/IT area) were offered to BT students in the academic year. However, no students have registered for the same.

Recommendation 7 c

FDPs on teaching methodology and evaluation strategies to be organized for new faculty members:

From July 27 to July 31, 2020, the Department of CSE&IT has conducted one-week online Faculty Development Program (FDP) on "Assistive Tools and Technologies for Online Teaching and Learning (ATTOTL-2020)".

Recommendation 7 d

More SDPs on communication skills to be organized for Administration, Registry & Accounts

For their departments, Registry and Administration, each conducted a Staff Development Program as below:

1. Registrar Office: Staff Development Program, 16-17 December, 2020.
2. Administration: Staff Development Program, 09 – 10 November, 2020.

Apart from this, IQAC has arranged a 6-day Professional Development Programme on Enhancing Communication and Soft Skills at the Institutional level from April 12-17, 2021 with 7 experts providing inputs and training to JIIT's Non-Teaching Staff for enhancing their communication skills.

Recommendation 7 e

Parents to be facilitated to interact with faculty/registry/etc in person for a day in every semester:

Although mail from parents is always prioritized by staff and the Registry, and any correspondence is turned back as soon as possible, there isn't much that can be done centrally about in-person interaction due to COVID-19. JBS has taken the initiative at the departmental level by hosting on only meeting with parents of BBA and MBA students on January 16, 2021. The online meeting was attended by all JBS faculty members. For the parents' suggestions, a form was created and shared with them online.

Recommendation 8

Departments of ECE, CSE & IT, PMSE, Mathematics, JBS and Biotech to organize workshops/short term courses of 2 weeks duration:

- From the 9th to 21st of August, 2021, the Department of CSE and IT have organized a 2-week Summer School on "Industry 4.0: Security and Technological Aspects", which was funded by the IEEE UP branch. Despite the fact that the school was supposed to take place in June 2021, it had to be postponed to August 2021 owing to COVID-19 issues.

- Workshop on "Analytics for Decision Making" for JBS Alumni working in various industries over the course of four weekends in April and May 2021 was organized.
- From 8th to 20th of March, 2021, The Department of Biotechnology organised a 2-week Interdisciplinary E – Course "Ergonomics Perspectives: Adding Quality to the Work – life balance addressing Work-Related Injuries in CoVID-19 Era.
- Other departments have planned for workshops or short-term courses in the coming session.

Recommendation 9

Department of JBS to organize FDP while Department of HSS to organize workshops and expert lectures:

JBS has conducted two FDPs/CDPs this year, the 1st FDP/CDP being conducted from 27-31, July 2020 and 2nd FDP / CDP from 21-26 June 2021. The department of HSS has organized 5 workshops, 3 Guest lectures and 7 webinars during the academic year 2020-21.

Recommendation 10

Departments to interact/collaborate with international researchers and Industry for consultancy and joint R & D projects:

This aim has been set as a goal for the departments to work towards it. All faculty members have been encouraged to seek out for international researchers and collaborate on research papers with them.

The department of ECE has made effort to collaborate by creating three advanced research centers in the department, namely:

1. Centre for robotics and intelligence
2. centre for unmanned aerial vehicle (Drones)
3. Centre for applied research in Microelectronics

Recommendation 11

Measures to be taken for increasing participation of students in sports activities:

On April 8, 2021, Dean S/W drew out a plan that was authorized by the then-Hon'ble Vice Chancellor Prof. S.C. Saxena. Due to the limits of social separation and mask, the sporting events could not be

held as planned because the college was only open for a month during Pandemic academic year 2020-21.

Recommendation 12

A centralized provision in the Institute to collect information regarding the awards won by students in off-campus events to be made:

In April of 2021, the then Hon'ble Vice Chancellor Prof. S. C. Saxena proposed and approved a plan. Information was collected from all students, collated and board for award of prizes and certificates was approved by Hon'ble Vice Chancellor Prof. S. C. Saxena on 17th June, 2021. All of the selected students were given certificates to recognize their efforts, as well as cash prizes worth Rs. 30,000/-, as recommended by the committee. JIIT Certificate of Appreciation was given to 107 participant students.

The details of various categories in which certificate and awards were given are listed below:

Technical Events - 67 Students
Sports Events - 9 Students
Cultural Events - 31 Students

Recommendation 13

Creation of a centralized Data-Cell to be considered:

Dean Academic & Research has been given the responsibility in this regard.

Recommendation 14

Student Entrepreneurship and Incubation Cell to yield measurable outcomes to be strengthened further:

Since November 2020, the CSE and IT department has been implementing activities to strengthen student entrepreneurship under the IILC. A separate cell was established in January 2021 under the supervision of Associate Dean, Dr. Vibha Rani to further strengthen student entrepreneurship in the Institute. The Department of CSE&IT provided that cell with a variety of resources.

Recommendation 15

Department of Training & Placement to facilitate students in obtaining their summer internship in companies invited for placements:

This year, there was an increase of 11% in engineering and 42% in management students opting for summer internship through campus. This time around, students may be able to compete better in internship drives.

Recommendation 16

The Department of Finance to prepare and communicate SOPs:

SOP- w.r.t Purchase for Government Grants - Projects has been made and communicated to all the faculty members by CFO through e-mail dated January 23, 2021.

Recommendation 17

NSS to strive and get funding from external agencies,

NSS team to be facilitated with a person dedicated to handling and managing data of NSS:

The NSS Committee is working to secure funds from outside sources. According to the NSS Convener, no manpower has been allocated so far to handle and manage NSS data.

Recommendation 18

The Institute to conduct webinars opens to public of general nature such as awareness of computer, internet, apps, security issues, AI, basic proficiency in PC use, etc:

In November – December 2020 and February - March 2021, the Department of Computer Science and Information Technology, in collaboration with the IIC, hosted a series of webinars on "Key Topics in Computer Science and Information Technology".

Topics

1. 30-Nov-20: Variants of IoT and Industrial IoT by Dr. Hema N
2. 02-Dec-20: Deep Learning by Dr. Mukesh Saraswat
3. 05-Dec-20: AI in Medicine by Dr. Anita Sahoo
4. 08-Dec-20 Essentials of Artificial Intelligence-1 by Dr. Neetu Sardana
5. 04-Feb-21 the Big Data Landscape by Dr. Parmeet Kaur
6. 11-Feb-21 Inception, Innovation, & Research Using Machine Learning In Diverse Areas by Dr. Anuja Arora
7. 02-Mar-21 a Bird's-eye View of Cyber Attacks and Cyber Security by Dr. Sangeeta Mittal

All detailed reports and pictures of events can be found at

https://drive.google.com/drive/folders/1CJVplEn5wij5DAzdW_eoY_FIjiDCXgCq?usp=sharing

Department of Biotechnology has conducted the following webinars this year:

1. 16-July-21: A public webinar on Äyurveda in everyday life: Caution & Concern"
2. 05-Feb-21: A webinar on Market research
3. 26-Dec-20: A webinar on theme "Atma Nirbhar Bharat"
4. 6 sessions on Yoga conducted during the academic year 2020-21.

Recommendation 19

<u>Smart Class facilitation to be arranged by procuring the required items in a phased manner:</u>

The process has been initiated at both the campus. According to NAAC requirements, ICT has been installed in all classrooms on both campuses. 12 classrooms have been equipped with Lecture Capturing System with all of the resources required for a smart classroom, that include EYERIS IX by Cybernetyx, wireless Mic, Data Switcher, Audio Mixer, an interactive white board and CPU.