

## Benchmarks for Institutional publicity and competitive marketing policy in connection with Internal Quality Assurance Cell (IQAC):

The Committee members discussed the matter at length and after detailed deliberations, it was resolved to recommend the following points for the wider publicity and competitive marketing of Institute's academic and research strengths to all stakeholders.

1. Publicity of academic programmes offered may be in the form of articles in special issues of newspapers or magazines. These articles should contain the details about eligibility and scope of these programmes along with strengths.
2. A poster/pamphlet containing the details of courses, eligibility and their scope should be sent to Colleges/Institutions, etc. for wider publicity.
3. Publicity of Courses offered by the institute, research publications, and research projects sanctioned by AICTE/UGC/CSIR/DST etc. should be highlighted regularly through print and electronic media.
4. The Institute should put emphasis on publicity and marketing in rural areas because of many reputed educational institutions have been established in the rural areas in these days.
5. The Head of the Departments may visit some nearby educational institutions for publicity of the courses and highlighting the strengths of the department or the students from the institutes may be invited to see the infrastructural and other facilities on the campus.
6. Institute through Corporate Relations Office should encounter the wrong news immediately.
7. A media cell should be established in the Institute.
8. Senior media persons and editors, etc. should be invited for delivering talks and interaction.
9. Hoarding having the names of the Institute should be displayed at prominent places on important roads leading to JISCE Campus, which will serve the purpose of publicity as well as it, will help the stakeholders.
10. Conferences and Alumni meet are the better source of publicity of an institution. Therefore, National Conferences/Seminars and Alumni meets should be organized regularly by the departments and the teachers of the institute should also be encouraged to participate in National/International Seminar/Conferences/Workshops etc.
11. The departmental profile containing the strengths of the department should be updated on the institute website regularly.
12. As a part of publicity, institute may adopt one adjoining village for creating awareness among the people towards social, health, environmental, economical and other issues.
13. An agency should be engaged for developing comprehensive advertisement cum publicity campaign

## Institute's website updating and information standardization process:

**General:** JIS College of Engineering, Kalyani was established on 6<sup>th</sup> June 2000. The Institute is situated at Kalyani, a rapidly growing town in the district of Nadia, West Bengal an educational hub of the state. It is about 60 km from the capital city of the state, Kolkata. The Institute is situated over a sprawling area of about 17.5 acres. The campus is laid out with picturesque landscape, various buildings. The Institute is recognized by the University Grants Commission under Section 2(f) and under section 12(B) of the UGC Act. The Institute has been accredited by National Assessment and Accreditation Council (NAAC), in 2008 as grade 'B'. The institute offers the course in the areas of engineering, technology and management.

**Website:** JIS College of Engineering home page (<http://www.jisce.org>) is the official domain name for the institute. The "official" home page structure includes the home page, the linked driven pages, and other sites integrated into the home page structure.

**Purpose of Website:** Objective of the home page is to provide a point of entry for the academic community to the institutes officially recognized information resources through links and navigational mechanisms and to provide timely content and links to news and events of general interest about JISCE. The following links are especially targeted: Students, Faculty and Staff.

There are two main sections to the site: -

- i. The front end published site, which is available to anyone in the world.
- ii. The private back-end site, which is available only to authorized members of the institute and controlled by username and password. User accounts are only created with the approval of the concerned Department/Branch Head.

**Access, Approval and Publishing:** Content on the institute website is controlled by role access. There should be 3 roles:

- Indenting Department, Approving Authority and Publishing on the website.
- Initially, all content to be uploaded on website must be reviewed by head of the department.
- It will be approved by the Competent Authority before going live.
- It will not publish materials to site unless expressly authorized by the head of the department.

**Maintenance and Editing:** JIS College of Engineering is the public entry point for many stakeholders of the institute. Authorized Web controller should continually do the upgrades, reviews and development of the Web site, realizing the possibilities of new technologies and evaluating methods of access in provide up-to-date, accurate information methodically and attractively. The web pages should regularly need to be reviewed for accuracy and updated as required. ***It must be current, accurate and consistent.*** This review should occur at least half-yearly. It is the responsibility of Head of the concerned department to ensure this happens.

- Department wishing to post announcements on the home page or other portions of the website should submit their request through official email or letter to the Web controller.
- Photographs on the main site are needed to be changed on a regular basis by the Web Controller as provided by the Departments.
- Faculty Pages are to be created in concerned department web link. They may provide their latest Bio-Data and photo for a web link. If faculty members have existing web pages hosted on any non-commercial website, these link may also be added in faculty page

**Required Style Specifications:** All pages on the main website must comply with the following requirements:

- It should be designed for best case viewing on multiple platforms, newer versions of Internet Explorer, Google Chrome, Firefox Mozilla, Opera and Netscape, etc.
- Look of the WebPages may vary slightly according to monitor's setting for color and fonts.
- Files for download must be under 20 MB in size.
- In case of audio and video, the quality must be highest. Video which is inappropriate in content, blurry, unsteady, or difficult to view should not post. Audio that is difficult to hear or inappropriate in content should not be posted. In order to be useful and convenient to the user, all files posted must be under 20 megabytes in size and 10 minutes in length.
- To enable a faster downloading time, scanned photographs should be limited to 144 dpi.
- Links to pages that are defunct or "under construction" should not be created or should be removed.

**Privacy Regulations :**

- Personal contact information of students including home and e-mail addresses, telephone numbers, and other information that could be used by unauthorized individuals, should not be published on the website.
- Video or audio files posted on the website must adhere to Website Policy. Proper written permission from those who have been audio-and / or video-recorded must be obtained by the person or persons doing the recording.
- Links to external websites should be checked thoroughly before inclusion on the website.
- All written work should be reviewed by the concerned department/branch to ensure that it is in no way defamatory.
- Written work should be checked by the concerned department/branch to ensure that no copyright or intellectual property rights are infringed.

Advertising unless approved by the Competent Authority, the advertising or direct sale of non-institute goods and services is prohibited on all sections of the Web site.

Logos and Graphics of Website Controller: website of the institute has its own logo and graphics relating to the institute that may be subject to agreements and any use of these would require prior approval of competent authority.

**Responsibility of Website Responsible Office:** The institutes Web site is need to be maintained by a designated official. At least one Senior Programmer and one other programmer, who have sufficient knowledge, maintain and edit the site, and should pass on their knowledge to a successor at the end.

**Miscellaneous Provisions of Website:** The JISCE Website is in the public domain and information uploaded on the website shall subject to official certification as per Institutional policy. For any interpretation regarding information hosted on our website, the decision of the head of the institution is final and the legal jurisdiction is limited to JIS College of Engineering, Kalyani only.

## Benchmarking of Extension-Cum-Social Interface Activities

The extension cum social activities can be categorized into two categories: 1. Academic, 2. Community & Commercial.

1. Academic: This includes:

- Policy research having social implications.
- Extension activities; lecturer/workshop/seminar/conference/related to social issues.
- Interaction with industries/govt. organizations/NGO
- Counseling (career/psychological)

2. Community & Commercial: JIS College of Engineering being an educational institution is expected to impart education to the needy for upliftment of society. This can be done in several ways.

- Continuing education programmes for targeted groups – working women, dropout etc.
- Extension services to the society for specific needs like community hygiene.
- Professional skills for better employability like computer literacy retailing, marketing, communication skills etc.
- Capacity building programmes, e.g. mobilizing for specific mission like polio campaign, fighting against corruption etc.
- Establishing liaison between society & educational institutions and their resources & assets, both material and expertise so as to increase frequent exchange of knowledge and capacities for mutual supplementation and enrichment
- One of the greatest challenges for India is that a no. of evil practices the society has accepted as normal though they eat into the vitals of the system. Gender discrimination, child abuse, crime, violence in the day to day life and in different attitude to life & work are the pervasive evils. They have to be thought and liquidated. Only a socially sensitive and committed youth, so trained in values of sensitive citizenship, by a synergized education can do it.

To successfully run the programmes, Institute may involve educated youths available in the concerned area vis-a-vis faculty-student volunteers from the Institute.

We are proposing that each department of the institute shall indicate to carry out at least one extension cum social activity based on available facilities and expertise in their respective department at the beginning of the academic session.

## Benchmarking of Modern Teaching-Pedagogies/Practices

Modern teaching practices and pedagogy: The eagerness to continually improve the educational experience of students has been growing steadily around the world. Classroom teaching practices are at the core of a teacher's work. We are now more aware of how teaching practices help shape the student learning experience and advance motivation and achievement. Research on institution effectiveness suggests that practices based on theoretical ideas are insufficient to foster student learning. Rather, a combination of clear, well-structured classroom management, supportive, student - oriented classroom climate, and cognitive activation (e.g. challenging content that promotes deep reflection in the student) has been shown to be effective.

**Classroom teaching practices:** High-quality instruction is often defined as the use of a variety of classroom teaching practices, allowing for both teacher-directed and self-regulated learning. For educational policy and teacher education, the results support calls for a good balance among the three dimensions of classroom teaching practices: (a) enhanced activities including challenging tasks and content, (b) student oriented, supportive practices and (c) teacher-directed practices that provide structure and clarity.

### **Improving Existing Teaching Methods by adopting a mix of new techniques :-**

1. **Lecture Method**—The most widely accepted and traditional method of teaching as it creates new ideas, good for large class, teacher can explain all points and subject and can answer all questions raised by students, Students can ask if they need any clarification. Yet by employing following techniques its effectiveness can further be enhanced:-
  - Interactive techniques- Through interactive techniques teaching can be turned into “fun”, and are frequently more effective than lectures at enabling student learning
  - Instructor Storytelling— Instructor illustrates a concept, idea, or principle with a real life application, model, or case-study “Real-World”—Have students discuss in class how a topic or concept relates to a real world application or product
  - Everyday Ethical Dilemmas—Present an abbreviated case study with an ethical dilemma related to the discipline being studied. Movie Application—In groups, students discuss examples of movies that made use of a concept or event discussed in class, trying to identify at least one way the movie-makers got it right, and one way they got it wrong.
  - TV Commercial—In groups, students create a 30-second TV commercial for the subject currently being discussed in class. Variation: ask them to act out their commercials.
2. **Simulation**—Place the class into a long-term simulation (like as a business) to enable Problem-Based Learning (PBL).
3. **Group Discussion:** More participation of students, students listens to other's opinion & expresses their opinion, Discuss with teachers the points that were missed during discussion. It can further be improved and added to by:-

- Picture Prompt—Show students an image with no explanation, and ask them to identify/explain it, and justify their answers. or ask students to write about it using terms from lecture, or to name the processes & concepts shown. Also works well as group activity.
  - Individual presentation: A presentation involves motivating listeners to accept a new idea, alter an existing opinion, or act on a given premise. Students first thoroughly understand the topic before giving presentation i.e. mastery on topic.
  - Tournament - Divide class into at least two groups & announces a competition for most points on practice test. Let them study a topic together & then give that quiz, tallying points.
  - Role Plays-Students assume one of the characters in a simulated situation in order to experience different points of view or positions.
4. **Assignment:** It enhances the ability of research on any topic as the students search topic from different books, websites etc.
  5. **Workshops/ Conferences / Competitions:** Give Chance to meet other people of same stream or even across the stream networking with other institutions and professionals.
  6. **Brain storming,** role play and case study.
  7. **Learning by doing** (Experimental learning) Learning-by-doing is generally considered the most effective way to learn. The internet and a variety of emerging communication, visualization, and simulation technologies now make it possible to offer students authentic learning experiences ranging from experimentation to real-world problem solving.  
Modern Pedagogy techniques: Teaching Pedagogies need continues improvement / upgradation by way enriching it with empirical research (by adding relevant research papers in references), case studies and current trends. Use of new technology and other media can add to effective dissemination of knowledge. The following techniques can be used:-
    - (a) Movies -Using movies or television clips or whole shows to engage students during lectures or to fuel discussions of course content by pointing out either fallacies or realities depicted there. Examples include using science fiction movies to discuss physics concepts.
    - (b) Podcasting-Enhanced: Combining images, such as PowerPoint, and audio, such as instructor voice over, which are compressed and viewable on a computer or photo/video iPod. Video: Digital video, such as classroom lectures or interviews with experts, which are compressed and viewable on a computer or video iPod.
    - (c) Simulation Computer-based - Interactive: Computerized model or scenario.
    - (d) Web-based Instruction-Using Web resources to support learning. blogs, building a Website, discussion boards, online testing and quizzes, research, virtual tours, web-streaming, web conferencing, online discussion board, online interaction (Online Chat, Online Evaluation, E-Mail Feedback).You tube-Video Demonstrations, Movie Clips, Student Videos, blogs, games.

Suggestion for improvement in the Institute based on above points :-

1. Class rooms must be equipped with minimum facilities like LCD/DLP (roof mounted), Computers with fast Internet. Some rooms to begin with, in each department must have Interactive Boards which can do away with need of LCD etc.
2. Safety, security, health and environment (SSHE, Institute-Industry collaborated) need to be executed in all Labs of the institute.
3. Web-Casting of important Lectures of University teachers on our website for future reference and onwards dissemination of knowledge to other stakeholders.
4. Orientation programs for new students in beginning of new session must be conducted to apprise students about the Departments, teachers, University, common facilities and overall future and values of the Institute. These programs may be conducted department wise or at Institute level.
5. Documentaries on presentation and communication skills etc must be shown to students department wise and also at the institute.
6. Department must revise syllabi, at least, in every block of three years.

### **Benchmarking of Research-Quality Standards/Publications**

Research is the key factor in the institutional identity and overall grading and rating of the institute. Innovative research gives recognition to an institute. On the contrary, institute which are weak in research become dependent on the outside supply of knowledge and their ranking and recognition goes down substantially. The faculty members in JISCE shall involve in conduction and publication of quality research.

#### Benefits of research benchmarking:

- To facilitate improvement in research quality
- To publicize program strengths to attract top students, faculty, and funding.
- To identify potential research collaborators to compliment research strengths.
- To make more rational, strategic and resource allocation decisions.

#### Research benchmarking criteria:

- Number of highly cited researchers in the Institute
- Academic performance per faculty
- Journal articles published in Nature
- Total articles in reputed journals
- Number of books published
- Number of citations
- H-index of institute and individual faculty member
- International collaborations
- Number of research projects ongoing and completed in the institute
- Number of patents granted and filed

- Number of national, international conferences conducted in the institute department wise.
- Number and nature of awards received by the faculty members
- Fellows of academies/societies /associations
- Industrial Consultancy projects

Suggestions to improve the quality of research:

It is unfortunate that India's share has declined in the world in terms of scientific paper publications. Until 12-15 years ago, India had a 10% share of the world scientific research in terms of publications in standard journals. It is now down to 2.5%, whereas China's share has gone up to 10-15% from a mere 5-6%. Moreover, India's share is less than 0.4% in the most prestigious publications. The Indian Institute of Science, Bangalore used to publish around 1200 papers in reputed journals which has come down to 750. In the field of Nano Science, China is number 1 in terms of publications, Japan is No. 2 and USA is No. 3 and India is nowhere. Out of the world's 500 top ranking universities only two Indian institutes i.e. IIT, Kanpur and IIS, Bangalore have found place below the 400 ranks. It is unfortunate that India has more than 500 universities but only two institutes could find place in the top 500 universities of the world. We are planning to increase number of universities to 1500. However, there is no plan to improve the quality of the existing universities or to provide means and resources to the existing universities to improve their academic rating. Scientific research is the soul of higher education and progress in modern society. It is the magic wand of new knowledge that would provide us means and methods of resolving problems and dilemmas. Currently the world is facing crisis on climate change, food and water shortage, and violence of all kinds. Poverty, unemployment and inequality are increasing constantly with rising material standards.

- Individuals, nations and communities have their own problems and priorities. It is the task of scientists/academicians to find solution to these problems and hence following suggestions are made to improve the research quality in the institute to meet the growing human aspirations.
- Faculty wise research policy needs to be formulated by the institute focusing the thrust areas of research in a time frame of three year plans. This task should be assigned to Dean's of research. Chairperson should be asked to present a vision document for the department of his/her tenure of three years. Industry representatives may be consulted while formulating the research policy.
- Establishment of research incubation and industry service centre for consultative research and to solve the specific problems of the industry through dedicated research teams.
- Collaborative industry oriented research projects within institute and outside institute should be encouraged.
- Establishment of centre of excellence in thrust areas of the institute shall be an excellent idea to promote research and outstanding researchers.
- Identification and encouragement to proactive researchers through awards, appreciation certificates, cash and increment based incentives needs to be introduced in the institute.
- Meritorious students should be helped through teaching assistantships with stipends. These students should assist faculty members in laboratory work, and/or in tutorials.



- Meritorious students should be essentially provided single room in hostels and they should also be allotted proper space in their departments and library for effective and timely implementation of their projects.
- Institute should create a reliable data bank of the most promising, dedicated and talented teachers based on their academic and research output and administrative duties of primarily academic and research nature should be assigned only to these teachers on merit.

### **Benchmarking of Students Support Institutional Services :**

Regarding various support systems for students were deliberated upon and the following are suggested:-

- 1. Students Grievances Cell** should be operational in the institute.
- 2. Regarding Hostels:-**
  - Hostel facility should be made available for students (boys & girls) who require the facility.
  - A room should be available in each hostel having Internet facility with computers.
  - Late night Canteen facility near hostel complex.
  - Indoor games (Table Tennis/Badminton/Carom etc) facility in each hostel.
  - Canteen with items of daily use such as Soaps, biscuits etc. near the Girls Hostel Complex.
  - Visitors room in each hostel.
  - 1 Guest Room in each hostel.
  - News Paper in each hostel.
  - Washing machine facility in each hostel.
  - Arrangement for ironing of clothes in each hostel.
- 3. Regarding Sports**
  - Existing sports activities to be strengthened.
  - Yoga and Meditation Centre should be created
- 4. Regarding recreational/entertainment activities:**
  - Different clubs under the Student Life Centre to be equipped with require instruments.
  - Open Air Theatre (OAT) should be made available for arranging various activities.
- 5. Regarding Students:-**
  - One week induction programme for fresher.
  - Adequate regular faculty.
  - In each practical Group there should not be more than 30 students in UG classes.
  - Industry visit of Students. At least one visit in each sem should be arranged from 2<sup>nd</sup> yr.
  - Special classes for weak students.
  - NCC unit to be functional.
  - Adequate class room/lab furniture for students following uniform policy in the institute.
  - Drinking water (filtered water with cooler) and toilets for students at various sites.
- 6. Examination Related-**
  - Result Declaration:-within 30 days from the end of examination.

- Details of results of students should be online.
7. **Regarding Scholarship/Assistantship/Fee/Account Matter:-**
- Scholarship distribution should be as per the institute norms.
  - Manual fee deposition time should be notified well in advance
  - Provision for online fee deposition to be targeted.
  - Fee details to be provided to students on line for the purpose of income tax etc.
8. **Admission related activities:-**
- On line entrance test for AMPAI.
  - Kit containing handbook, I card, library card etc. be given at the time of admission.
9. **Training and Placement Activities:**
- Arrangement for conducting soft skills and personality development programmes for final/pre -final year students.
  - Provision for monitoring of students under training in outside agencies/firms.
  - T&P facility be strengthened considering, students having marks less than 60%
- 10 **Creation of new facilities:**
- Technical instrument maintenance cell.
  - Proper Solid Waste Management for sanitation
  - Solar light in the campus
  - Rain water harvesting plan in the campus.
  - Covered passage connecting with main building to multipurpose building, Dr. B C Roy auditorium and Management building.
- 11 **Medical facility:**
- 24 hours Medical facility to the hostel students
  - 24 hrs transport facility for medical purpose.
  - Permanent doctor
12. **Cell for prevention of sexual harassment and eve-teasing.** Existing Cell be strengthened.
13. **Miscellaneous:-**
- CCTV arrangements at various sites.
  - Sanitation of campus including toilets.
  - Motor driven vehicles to be disallowed to students only bicycle (leg driven) to be allowed.