Annex 3: Mentor report Form (1)

Name of Mentor: **Prof. K. C. Patra** Dates of Mentoring Visit: **15th – 18th March 2016 (4th Round)**

Name of Institution with Location: **JIS College of Engineering, Kalyani, Nadia, West Bengal (Under the subcomponent 1.2)**

No.	Seven key aspects	Qualitative summary And Supporting evidence of progress*	Progress Since previous visit
component 1: improving the quality of education			
1.1	**Strengthening institutions to improve learning outcomes and employability of graduates**	**a. Curriculum restructures:** Respective departments are asked to follow on the MoU signed with the Industries during twin events of JIS Tech 2K16 and the National Seminar TRME and take the stakeholders feedback from them as Recruiter / Trainer organization to the students in order to restructure curriculum through BOS. The list of Industries with which MoU has been signed is attached herewith as provided by the Convener, JIS Tech 2K16. Induction of more Industry representative has been done across the departments. **b. Teaching Learning Process:** Improvement in teaching learning process through strong class monitoring is in place through multi-tier monitoring mechanisms. Empowering the subject teacher is determined as the key factors for strengthen the process. Maximum communication between student to institute and institute to students are performing through the subject teachers. As a result, teacher-student bonding is significantly improved. Pedagogical training has regularly being conducted to improve core-competencies of the faculty members in teaching and some outcome in the form of Curriculum Content Analysis. Lesson Plan, Session Plan and creation of appropriate learning resources and accountability in conduction of classes (both theory of labs) “in time” and “full time”. Incorporation of visiting faculty members on specialized domain, effective reduction in staff absenteeism, availing planned informed leave and quantitative optimization in number of classes conducted has been observed. A Monthly Instruction Summary (MIS) from the individual faculty members has recently been adopted .	• The JIS Technological Symposium “JIS Tech 2K16” held during 21st -22nd January, 2016 to show case the innovation of intra- and inter Institutional representative. The students of the various departments exhibited their talent through innovative projects in versatile range from arts to managerial model, from technological to medical projects. The students from number of neighboring and distance institution show-cased their innovative works. A brief report of the JIS Tech 2K16 is also attached herewith. MoU signed with various Industries in the aforementioned program has been discussed in the Section 1.05[2]. • National Seminar on ‘Teacher as Role Model in Education’ (TRME) held on 22nd January, 2016 as a part of our Networking with Schools activity. Over two hundreds teachers from various Institutions of the State joined and enlightened the event with their thoughtful opinion. This event is hosted in succession and directed to continue bonding with sustainability. The report of the TRME is incorporated in above. • Through various distinguished layers of activities under I-I-I-Cell such as R&D, Employability Enhancement and Improvised Teaching Learning process students are being exposed to ideal working environment in present day scenario.

		Attendance monitoring mechanism with Bi-weekly submission of attendance data is in place and personalized communication through email has been started. Steps are taken on the student's under-satisfactory attendance and taking follow up remedial measures by the Registrar's Office through Sr. faculty members. **c. Evaluation and Assessment:** Revised internal mark format incorporating behavioral aspect and participation of the students encouraging activity-based learning has been placed. Equity factors in these aspects are also taken into consideration. (Annexure 1.05[10]). Resolution has been taken in last HOD /TIC meeting for assessment of internal marks by taking averages of two class tests marks. **d. Curriculum and beyond:** Integration of live programs like QEEE program resourced by IIT Chennai and frame worked by MHRD, BMOOC, Spoken tutorial conducted by IIT Bombay, IIT KGP has been done. Students are attending the national program and qualified for certification by IIT and MHRD. Report of the QEEE Coordinators (institutional) on conduction of the program is attached. List of enrolled students in BMOOC and participation summary in Spoken Tutorial Project as provided by the Remote Centre Coordinator is attached herewith. Supplement teaching learning process, training of students with general and technical aptitude has been conducted using the internal resources. Announcement in this regard is attached herewith. Proposal for upcoming GATE Training for GATE 2017 for 3rd year students has been approved in the IPMU meeting dated 10th February 2016 involving 300 students (approx.) from April - September 2016 by Experts from Professional Organization. GATE 2016 Training has been conducted in two sessions from 15th July -31st October 2015 involving 200 students. Feedback was admissible. Some eminent invited lecture has been arranged in Solar Energy Optimization and Entrepreneurship, networking and Internet of Things (IoT). **e. Research Outreach:** Effort has been made to encourage quality publication with ISSN/ ISBN No, Impact Factor and making this prerequisite for funding. Seminar conducted to guide the students for paper publication with impact factor and not to get provocation by the mushrooming paid journals and organizations.	• Students have gathered various latest technical knowledge and overview of the world latest technologies by attending National and International Seminars at college. • Teaching learning process has also been improvised with the help of the experts from the renowned industries to upgrade and up to date the knowledge of the students according to the modern industry practices, which helps the students to focus on their goal and find a way to achieve it. • Different ideas, latest technological knowledge, guidance from industry personnel, visiting industries, and doing live projects from industries helps, students to visualize actual working environment under various circumstances and industry focused, that combindly helps to increase the employability of the students. • These positive and encouraging atmospheres of study have worked well among the students which results into visible improvements in terms of academic performances, getting job opportunities, paper publications and application for live projects.

		Number of Innovative projects has been showcased by the students and inter-departmental competition on R&D been organized in the recently concluded **JISTech 2K16**, the signature event of JISCE. A brief description of live projects is attached herewith. As an outcome of the technical symposium, 04 nos. of Patent been filled on 9.3.16 – i. Automatic Cardiovascular Disorder Diagnosis System ii. Economic Class Generalized Handicap Vehicle for Upper and Lower Amputee Patient. iii. Non-Conventional Energy Generated Type and other System for Motor Cycle or any other Vehicle iv. Sophisticated Advanced Braille Slate for Blind People with Left to Write Writing Facility	
1.2	**Scaling up postgraduate education and demand-driven research, development and innovation**	**1. Teaching & Research Assistantship:** • **No. of non-GATE students received Teaching Assistantship:** **85 Nos.** [42 of 1st year students of 2013-14 & 28 of 2nd year students of sessio 2011-12 batches] • Out of additional fund further 27 non Gate students from 1st and 2nd yr. PG courses have been selected for assistance during the project period w.e.f. 01.01.2016. 1st yr. students will receive assistance till Oct. 2016 and 2nd yr. students till June 2016. • **No. of PhD scholars received research Assistantship:** **NIL;** No PhD assistance could be awarded as WBUT has not yet permitted this institute for registration of students for PhD. However, the Institute has given permission 'Conducting Course Work of PhD Program under the University. [Ref. letter No. 1.17.4/Regis/JIS/PhD.Prog/2015 dated 22nd April, 2015.] **2. Research and Development** **No of ongoing Research projects by the funding agencies: 29** **No. of International Conferences organized in areas related to R&D: 03**	• Direct involvement of students in day-to-day laboratory class activities, enriching them with skill of knowledge sharing and class room management. • Development of disciplined attitude and work ethics. • MCNT and EIE M. Tech students participated in implementation of AICTE-RPS project of ECE Dept. • Students of EIE, NST, IT, CSE, MCNT published research papers in Journals of International repute. • Need to be extended to PG students of upcoming batches. Facilities of seed money for project work should be provided if deliverables are noteworthy. • Each student has to take 03 to 04 laboratory sessions per week as per the institutional time table. No. of International Conference organized: **03** Major outcome from the International Conferences: i. In each of the conference external experts across the Globe participated and there were congenial environment for knowledge sharing, networking. ii. Topics and related tracks were wide [Computers & Communications (IC3A-2013), Non-conventional Energy (ICONCE-2014), and Medical Electronics (ICAME-2015)].

i. IC3A (2013): Board subject area Computers & Communications

No. of papers presented: 200

ii. ICONCE(2014): Board subject area Nonconventional Energy

No. of papers presented: 100

iii. ICAME(2015): Board subject area Medical Electronics

No. of papers presented: 60

One more International Conference proposed in 2016.

No. of Patents obtained during TEQIP period: 02

- Dr. Somsubhra Gupta, Department of Information Technology
- Dr. Biswarup Neogy, Department of Electronics & Communication Engineering
- Applied : 04

3. Faculty & Staff Dev. Training (both National & International):

1	Qualification up gradation (National/ International)	National/International: **35**; Support for paper publication: **24**, PhD registration/Enrolment charges: **07**, Thesis submission charges: **04**)
2	Subject knowledge & research competence up gradation (National/ International)	**85** (National) [22 separate faculty participated outside the institute and some of them participated multiple times]
3	Participation in seminars, conference, workshop (National/International)	**147** (International) **118** (National) [46 separate faculty participated outside the institute and some of them participated multiple times]
4	Training of Technical staff in operation and routine maintenance of both existing and new laboratory equipment	**33** [28 separate faculty participated outside the institute and some of them participated multiple times]

iii. A total of 360 oral presentations were made through these conferences.

- No. of faculty members made journal publication with TEQIP grant.

  International: 400; National: 145.

- No. of faculty members received PhD registration/enrolment/thesis submits EQIP grant.

  (a) PhD registration/enrolment charges: 06
  (b) Thesis submission charges: 03
  (c) Support for paper publication: 23

- Any other mentionable points.

a) No. of Patents obtained during TEQIP period: 02

  - Dr. Somsubhra Gupta, Department of Information Technology
  - Dr. Biswarup Neogy, Department of Electronics & Communication Engineering.

- Number of funded R&D projects being carried out: 29
- Number of funded R&D projects completed during TEQIP period: 01
- Amount of fund utilized so far: 43.46 lakhs
- Major outcome from these seminars/conferences.
  a. All pertinent department organized at least one such event, opening window of advanced knowledge in the domain concerned.
  b. Some of the events were interdisciplinary in nature, providing perfect platform for knowledge sharing.
  c. Significant number of students participated in conferences, thereby opening the new horizon of learning in front of them.
- No. of Pedagogy program conducted: Basic Pedagogy in 03 phases between 16th September - 05th July 2014; advanced pedagogy between 24th June to 30th June 2015.

5	Training of administrative staff in the use of modern office equipment, software, office automation, maintenance of records, procedures etc.	**31** [28 separate faculty participated outside the institute and some of them participated multiple times]
6	Pedagogical training of faculty	(i) In-house by NITTTR Kolkata: 139 faculties in Basic – continuing & 20 faculties in Advance – continuing (ii) At IIT KGP – 29 faculties.
7.	In-house Seminar/ Conference Organized	30

International visit of the faculty members:

i. Dr. U. Bandyopadhyay, then Principal and now Prof, ME Dept. attended a symposium titled "Haptics Symposium" to be held at Houston, Texas, USA during the period February, 23-26, 2014.
ii. Mrs. Soma Biswas, AP (EE) attended conference 'ICEEA-2013' at Hongkong from 23-25 August 2013.
iii. Dr. P K Bardhan, HOD (ME) attended 14th International Foundry Men Conference during 13-19 May 2014 at Opatija in Croatia.
iv. Mrs. S S Ghosh, Nodal Officer, IIIPC and Dr. S S Gupta, Nodal Officer (Academic) & HOD (IT) for International travel to USA to attend Conference 'NAFSA-2013' from 21-31 May 2013 (Institutional Funding)
v. Mr. Indranath Sarkar, ECE Dept. attended Oxford Summit of Leaders in UK during 15th -20th December 2013 (Institutional Funding)
vi. Dr. Mahua Das, HOD (Chem) attended 2nd International Conference on Polymer Materials (PMS 2016) at Bankok during 14-16 January 2016 and presented her paper.

1.3	**Faculty development for effective teaching (pedagogical training)**	National: **35** (Support for paper publication: 24, PhD registration/Enrolment charges: 07, Thesis submission charges: 04) **83** (National) [22 separate faculty participated outside the institute and some of them participated multiple times] **147** (International) **118** (National) [46 separate faculty participated outside the institute and some of them participated multiple times] **31** [28 separate faculty participated outside the institute and some of them participated multiple times] **30** [28 separate faculty participated outside the institute and some of them participated multiple A three phase Basic Pedagogy training has been completed in-house by NITTTR, Kolkata during 16-21 June, 23-28 June & 30th June to 5th July 2014; 110 faculty members covered from 16th June to 5th July 2014. Advanced Pedagogy training organized between 24th to 30th Junel 2015. 20 Faculty members participated. Besides, 29 faculty members participated in Pedagogical training conducted by IIT, KGP (in 3 phases).	

Date: 18.03.2016

(Dr. K. C. Patra)

Signature of Mentor

Annex 3: Mentor report Form (2)

Name of Mentor: **Prof. K. C. Patra** Dates of Mentoring Visit: **15th – 18th March 2016 (4th Round)**

Name of Institution with Location: **JIS College of Engineering, Kalyani, Nadia, West Bengal (Under the subcomponent 1.2)**

No.	List of interviews	Key discussion summary points
1.	**Undergraduate students**	• **Desired Improvement in Students Performance evaluation** i) Student Performance Evaluation to be strengthened with reforms, (ii) Students me be allowed to take down class notes in their laptops if wanted. • **Curricular reforms including improvement in teaching learning process:** (i) some percentage of class room teaching should be imparted through Power point Projection, (ii) Proper and adequate guidance may be for Project Work. • **Exposure to industry:** (i) Some UG students associated with Industry oriented/sponsored research programs under the guidance of senior faculty, (ii) Industry Exposure may be provided to the student from 2nd years onwards. • **Responsiveness of the institution to suggestion from stake holders (implementation academic autonomy):** To be strengthened more. • **Increasing Effectiveness of accademic Support to week student to improve their learning out comes, and support to all student to improve their employability:** This may be extended to others students if wanted. • **Improving students satisfaction with academic and administrative function of the institution: Transparency** in academic decision taken by the BOG should be maintained. • **Student Contribution to management and Governance:** Student's views may be considered in the matters concerned to them.
2.	**Postgraduate students**	**All the points stated above in item 1, are also discussed with these students ,besides the following points are covered** • **Facilitating placements:** PG Students must be allowed to sit in campus selection along with the UG students. • **Working on the Industry Related Project:** It must be encouraged more. • **Participation in Research & Development Project, Consultancies &Publication:** Much emphasis should be given.
3.	**Faculty**	• **Improving responsiveness to student's Performance evaluation:** It is already in place through periodical internal tests and continuous performance evaluation. Continuous performance Evaluation has been implemented since Even Semester 2013 and the Evaluation Diary has been implemented since Odd Semester 2013. The mentorship programmed has been implemented in an improved way and mentorship forms have been collected. This contains the information about interactions between students and their faculty mentors. In addition to the above Surprised Test may be included in teacher's assessment of theory papers.

- **Effectiveness of curricular reforms carried out including improvement in teaching learning process :** (i) Curricula revisions both in UG & PG under Autonomy structure are being done through BOS with participation of experts from renowned Academic Institutions, Universities and Industries

  The revised curriculum in all technological disciplines is in place and has been implemented in the ongoing 3rd Semester of study in all existing programs. (ii) General Proficiency (GP) course be included in the curriculum as a credit course. (iii) Power Point Projection may be encouraged in theory classes.

- **Effective Implement of Academic Autonomy:** Certain format may be prescribed for requesting financial assistant in UG and PG projects.

- **Increasing Effectiveness of Academic Support to Weak Students to improve their learning Outcomes , and support to all students to improved their employability :**

1. Diagnostic Tests

Remedial Teaching for Slow Learners Identified from Diagnostic Tests

2014-- Dates of Diagnostic Test

05/08/14, 06/08/14 ,
Subjects Covered : Physics, Chemistry, Mathematics, English

2015--- Dates of Diagnostic Test

05/08/2015, 06/08/2015, 09/08/2015 and 21/09/15

2. Remedial Teaching for Slow Learners Identified from Diagnostic Tests

And Enhancement of Employability Skills under EAP TEQIP 1.2

(Remedial teaching – No. of students covered, man-hours involved, no. of classes conducted.)

1. <u>Phase VI (26-27 June 2014) Contd. From June 2014</u>

1. No. of students involved – 110
2. No. of Persons involved – 01
3. No. of hours involved/day – 04
4. No. of Days involved – 02

2. <u>Phase VII (3-11 July 2014)</u>

1. No. of students involved – 110
2. No. of Persons involved – 01
3. No. of hours involved/day – 04
4. No. of Days involved – 02

5. <u>Phase VIII (26th June 2014-19th September July 2014)</u>

1. No. of students involved – 150
2. No. of Persons involved – 01
3. No. of hours involved/day – 02
4. No. of Days involved – 22

For Employability Enhancement

6. Phase IX (17/07/2014-19/09/2014)

1. No. of students involved - 75
2. No. of Persons involved - 01
3. No. of hours involved/day - 04
4. No. of Days involved – 22

7. Phase X (25/07/2015-07/11/2015)

1. No. of students involved - 200
2. No. of Persons involved - 01
3. No. of hours involved/day -3
4. No. of Days involved – 19

8. Phase XI (15th July-31st October 2015) for GATE

1. No. of students involved -160
2. No. of Persons involved - 01
3. No. of hours involved/day - 02
4. No. of Days involved – 27

9. Phase XII (11-18th October 2015) for GATE

1. No. of students involved -140
2. No. of Persons involved - 03
3. No. of hours involved/day - 06
4. No. of Days involved – 24

10. Phase XIII for 1st Year B Tech conducted from 28/09/15-13/11/2015

1. No. of students involved - 500
2. No. of Persons involved - 01
3. No. of hours involved/day -02
4. No. of Days involved – 25

11. Phase XIV for 1st Year B Tech conducted from 28/09/15-13/11/2015

1. No. of students involved - 500
2. No. of Persons involved - 01
3. No. of hours involved/day -02
4. No. of Days involved – 25

12. Phase XV(3-31st October 2015 every Saturdays)

1. No. of students involved -40
2. No. of Persons involved - 03
3. No. of hours involved/day - 06
4. No. of Days involved – 4

13. Phase XVI (5-28th January 2016)

13. No. of students involved -140
14. No. of Persons involved - 03
15. No. of hours involved/day - 06
16. No. of Days involved – 24

14. Phase XVII (18-19th January 2016)

14. No. of students involved -40
15. No. of Persons involved - 01
16. No. of hours involved/day - 06
17. No. of Days involved – 02

15. Induction program for 1st yr. students (4-8 August 2014)

15. No. of students involved - 350
16. No. of Persons involved -06
17. No. of hours involved/day - 06
18. No. of Days involved – 05

16. Induction program for 1st yr. students (3-7 August 2015)

1. No. of students involved - 500
2. No. of Persons involved -06
3. No. of hours involved/day - 06
4. No. of Days involved – 05

3. For Soft Skill Development:

Note: For 2014 1st year B Tech Batch Soft Skill and Personality Development classes have been made compulsory and introduced in the routines of the respective semesters. Also Remedial Classes are incorporated in Routine and conducted by Physics and Mathematics Departments for 1st year classes

1. Soft Skill Training by External Expert for 1st Year B Tech conducted from 28/09/15-13/11/2015

1. No. of students involved - 500
2. No. of Persons involved - 01
3. No. of hours involved/day -02
4. No. of Days involved – 25

- **Increasing Admissions to Master's and Doctoral Programme:** The Institution maybe authorized to conduct the Admission Test for the post graduate students

- **Improving Faculty Development for improved competence including pedagogical training:**

Qualification up gradation (National/International): National/International: **35**; Support for paper publication: **24**, PhD registration/Enrolment charges: **07**, Thesis submission charges: **04**

Subject knowledge and research competence up gradation (National/International): **85** (National) [22 separate faculty participated outside the institute and some of them participated multiple times]

Participation in seminars, conference, workshop (National/International): **147** (International) **118** (National) [46 separate faculty participated outside the institute and some of them participated multiple times]

Training of Technical staff in operation and routine maintenance of both existing and new laboratory equipment: 33 [28 separate faculty participated outside the institute and some of them participated multiple times]

Training of administrative staff in the use of modern office equipment, software, office automation, maintenance of records, procedures etc.: 31 [28 separate faculty participated outside the institute and some of them participated multiple times]

Pedagogical training of faculty: (i) In-house by NITTTR Kolkata: 139 faculties in Basic – continuing (ii) At IIT KGP – 29 faculties.

In-house Seminar/ Conference Organized : 30

International visit of the faculty members:

i. Dr. U. Bandyopadhyay, then Principal and now Prof, ME Dept. attended a symposium titled "Haptics Symposium" to be held at Houston, Texas, USA during the period February, 23-26, 2014.

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vi. Dr. Mahua Das, HOD (Chem) attended 2nd International Conference on Polymer Materials (PMS 2016) at Bankok during 14-16 January 2016 and presented her paper.

Outcome of pedagogy training conducted in-house by NITTTR and at IIT KGP.

i. Outcome of NITTTR training (Basic and advanced):

The training activities are continuing across the TEQIP period. A total of 139 faculty members so far participated in Basic Pedagogy training and 20 participated in Advanced Pedagogy. After monitoring the implementation mechanism of the knowledge developed during training, following major points were identified for implementation.

From Basic Pedagogy:

i) preparation of Content Analysis
ii) preparation of lesson-plan of each paper stating various lesson stages viz. introduction, presentation, consolidation
iii) implementation of 'Active Learning system'
iv) use of 'Media' in learning-teaching system
v) Modifications in laboratory experiments for enhancing engineering skill of the learners.

From Advanced Pedagogy:

i) Access to Information Resources and Knowledge Bases (E-learning resources, ICT Infrastructure, E-learning standard SCORM)
ii) Micro-teaching (Teaching Skill Components, Planning Teaching Skill Components, Teaching Skill Practice]
iii) Outcome based assessment of students and preparation of questions- preparation of Table of Specification and connection.
iv) Research Methodology.

Level of implementation of knowledge acquired through Pedagogy training.

i) Preparation of Content Analysis: 90%
ii) Preparation of lesson-plan of each paper stating various lesson stages viz. introduction, presentation, consolidation: 90%
iii) implementation of 'Active Learning system': 75%
iv) 'Media' in learning-teaching system: 50%
v) Modifications in laboratory experiments for enhancing engineering skill of the learners: 90%
vi) Access to Information Resources and Knowledge Bases (E-learning resources, ICT Infrastructure, E-learning standard SCORM): 95%
vii) Teaching Skill Components, Planning Teaching Skill Components, Teaching Skill Practice: 50%
viii) Outcome based assessment of students and preparation of questions- preparation of Table of Specification and connection: 25%

In addition to the above Industrial Training for Teachers may be given at least for 2 weeks.

- **Improving Research Facilities and Research Environment in the Institution:**

(a) No. of Industry sponsored research projects undertaken: Nil
No. of research projects undertaken by the faculty individually, jointly and collaboratively. Expected outcome of each project:
30 UGC Minor Projects submitted during the academic session 2015-16, 29 [One project sponsored by DST, one by CSIR and one by Institute of Engineers 04 more AICTE RPS project, 22 nos. UGC (minor) projects]. One project from Institute of Engineers has been completed during the project period.

1. **Title:** In silico design of novel molecular rectifier and spin filter through nonequilibrium Green's function technique" [D.O. No. SR/FTP/PS-85/2009]
Funded by: DST, Govt. Of India **(Rs. 4.20 lakhs) Principal Investigator:** Dr. Sabyasachi Sen, Department of Physics & Department of Nanoscience & Nanotechnology
Expected outcome: Proposal of new generation of molecular electronic device.

2. **Title:** 'In silico design of novel molecular spintronic devices through nonequilibrium Green's function technique **Funded by:** CSIR, Govt. Of India **(Rs. 13.22 lakhs)**
Principal Investigator: Dr. Sabyasachi Sen, Department of Physics & Department of Nanoscience & Nanotechnology
Expected outcome: Proposal of new generation of molecular spintronic device.

3. **Title:** Design a low cost microcontroller based wireless civil structure monitoring system
   Funded by: Institution of Engineers (India) **(Rs. 0.50 lakh)**
   Principal Investigator: Mr. Anirban Patra, AP (ECE)
   Expected outcome: To monitor health concrete structure.
   Completed in February 2014.

4. **Title:** Solar Photovoltaic hybridization with usual grid to compensate peak load demand at JIS College of Engineering Kalyani. **(Rs. 8.00 lakhs)**
   PI: Rakesh Naskar, Co PI: Mr . Ajay Chanda
   Expected outcome: Improvement in present load system of the Institute.

5. **Title:** Produce the knowledge based database of electromyography (EMG) signal to enrich the interpretation technique for different human arm movement.
   PI: Dr. Biswarup Neogi **(Rs. 11.33 lakhs)**
   Expected outcome: Developed knowledge based data base will be support for development of hand prosthetics and also thought control concept of robotics hand.

6. **Title: Natural language processor incorporating auto-debugger under the framework of machine intelligence. (Rs. 2.60 lakhs)**
   P.I. Dr. Somsubhra Gupta
   Expected outcome: The work presents a system to compile and execute algorithm written using precise expression and can rectify error committed by the developer. The algorithm can be expressed with any linguistic synonym (vocabulary) or syntax (grammatical) variation. Since the system is syntax free nobody requires learning it manually.

7. **Title**: Design & Development of a Cardiac parameter Monitoring System using common mobile phone for affordable patient care; and Funded by AICTE **(Rs. 10.55 lakhs)**
   PI: Dr. Meghmala Dutta; and Co PI: Dr. Somsubhra Gupta.

8. **Title:** Synthesis of Nanocellulose from Bamboo fiber to develop polymer Nanocomposit suitable as Biodegradable Packaging Material. **(Rs. 2.60 lakh)**
   PI: Dr. Mahuya Das. Funded by: UGC (Minor scheme)

9. **Title:** Study of arsenic removal from contaminated water through solid membrane. **(Rs. 2.05 lakh)**
   PI: Mrs. Trina Dutta. Funded by: UGC (Minor scheme)

10. **Title:** Synthesis of Silver Bionanocomposit through reduction route. **(Rs. 2.50 lakh)**
    PI: Mr. Tanmoy Dutta. Funded by: UGC (Minor scheme)

11. **Title:** Development of Bone Paste from Waste Egg-Shell for Bone Grafting
    PI: Dr. Sandip Bag Funded by: UGC (Minor scheme)

12. **Title:** Development of cost effective real time acquisition, processing, analyzing and monitoring system of bio-signals for non-invasive diagnosis and prediction of cardiovascular abnormalities.
    PI: Dr. Meghamala Dutta Funded by: UGC (Minor scheme)

13. **Title:** Metal free ferromagnets and their potential applications as spintronic device: An in silico study Metal free ferromagnets and their potential applications as spintronic device: An in silico study
    PI: **Dr. Sabyasachi Sen** Funded by: UGC (Minor scheme)

14. **Title:** Computational Studies on Novel Channel Materials for MOSFET Applications
PI: **Dr. Swagata Bhattacherjee** Funded by: UGC (Minor scheme)

15. **Title:** Development of database on electronic referrals for health care in West Bengal
PI: **Dr. Subhranil Som** Funded by: UGC (Minor scheme)

16. **Title:** FPGA Based Implementation of a MAC unit for Digital Signal Processors
PI: **Mr. Satrughna Singha** Funded by: UGC (Minor scheme)

17. **Title:** Design of an interhuman unimodal biometric authentication system.
PI: **Mrs. Monalisa Dey** Funded by: UGC (Minor scheme)

18. **Title:** The cognitive mechatronic fire extinguisher vehicle with obstracle detection an bypass
PI: **Mr. Sumanta Chatterjee** Funded by: UGC (Minor scheme)

19. **Title:** Diagonisis of H dieses Using QRS Complex detection
PI: Sayanthi Chattopadhyay Funded by: UGC (Minor scheme)

20. **Title:** Robust level and pressure sensing control Mech for Int lock gates
PI: Samayita Sarkar Funded by: UGC (Minor scheme)

21. **Title:** Methodology for unique identification using ste. Ret. Image
PI. Moumita Paul. Funded by: UGC (Minor scheme)

22. **Title:** Modellinhg and validation of radio signal attndure to tropical cloud.
PI. Swastika Chakraborty Funded by: UGC (Minor scheme)

23. **Title:** Low cost RFID based automatics DAS and PD in pub transport.
PI. Anirban Patra Funded by: UGC (Minor scheme)

24. **Title:** Bandwidth and gain enhancment of microstrip antena
PI: Indranath Sarkar Funded by: UGC (Minor scheme)

25. **Title:** Design approach of sophisticated compuational and cyber interaction for several types of cerebral palsy patient
PI: Biswarup Neogy Funded by: UGC (Minor scheme)

26. **Title:** A spirometric study on smokers and non-smokers engineering students
PI. Sauvik Das Funded by: UGC (Minor scheme)

27. **Title:** Rural health care development using vehicular sensor network.
PI: Suparna Dasgupta Funded by: UGC (Minor scheme)

28. **Title:** Androgen: An android approach to restore ability, productiviity and agibility of old people
PI: Sohom Sengupta, Funded by: UGC (Minor scheme)

29. **Title:** Automated cleaning and coorking for an auto solar-tracking PV panel
PI: Sumit Das Funded by: UGC (Minor scheme)

No. of Consultancy Assignments taken by the faculty: 01
Amount of Internal revenue generated through R&D: NIL
Number of Research papers published since July 2010: International: 400 National: 145

(b) Financial assistance for consumables in conducting the research for Industry applications may be Granted

- **Satisfaction with incentives for continuing education, consultancy, research and Development:**
  Faculty incentive for continuing education: Provision for normal and accelerated upliftment is in place in faculty appraisal. Presently no CE program is in place.
- **Ways and means for increasing exchange of knowledge through conference through conference etc. and increasing both quality and quantity of publication (research Ppaer, books, monographs etc.):**

  No. of International Conferences organized in areas related to R&D: 03
  iv. IC3A (2013):
  - Board subject area Computers & Communications
  - No. of papers presented: 200

  v. ICONCE(2014):
  - Board subject area Nonconventional Energy
  - No. of papers presented: 100

  vi. ICAME(2015):
  - Board subject area Medical Electronics
  - No. of papers presented: 60

  One more International Conference proposed in 2016.
  No. of Patents obtained during TEQIP period: 02
  Dr. Somsubhra Gupta, Department of Information Technology
  Dr. Biswarup Neogy, Department of Electronics & Communication Engineering

- **Increasing collaboration with industry for securing research and development projects and consultancy assignments and for increasing flow of industrial expertise to support curricula improvement , research and development activities :**

No. of Campus Interviews conducted --(YOP 2012-110, YOP 2013-104, YOP 2014-96 and YOP 2015-112 and 2016-05 continuing): 442
No. of students placed (YOP 2012-443, YOP 2013-457, YOP 2014-324 and YOP 2015-236 and 2016-42 continuing): 1502
No. of Industry Visit conducted: 26
No. of students participated in Industry Visits (YOP 2012-512, YOP 2013-450, YOP 2014-300. YOP-2015-270 and YOP 2016-350 and continuing): 1882
No. of students trained at the Industry (YOP 2012-538, YOP 2013-612, YOP 2014-375 ,YOP 2015-480, YOP 2016-650): 2655
No. of training session organized at college campus --33
No. of MOU with Industries—14
No. of Industries Accreditation—06
Formation of Industry-Institute-Interaction Cell – its composition, process of function-- I-I-I Cell already formed and functioning as per guidelines (Annexure-IX) of PIP;
Key activity areas where faculty participated for the benefit of the institute by June 2015-- Campus Interviews-442 companies; Industry Visit-36 faculties; Conducted industry visit by the students-23 Industries; Signing MOU with industries-Nos. 14; Industries' Accreditation etc-Nos. 6.
Key areas in which academic institutes benefited industry by June 2015-- Participation of Industries in recruitment drive-245 Companies participated

Better interaction between Technical Institutions and Industry is the need of the hour. This will have great bearing on the engineering curriculum, exposure of industrial atmosphere to engineering students and subsequent placement of young graduating engineers in industries across the country. With the advent of globalization and opening up of Indian economy to outside world, competitions among industries have become stiff. To solve their engineering problems they look up now to engineering institutions. Similarly, there is an urgent need to prepare engineering students for jobs in multinational companies, by exposing them to newer technologies and engineering methodologies. These objectives can only be achieved well by bridging the gap between industry and the academic institute.

To promote IIIC following schemes are being undertaken:

Establishment of Industry-Institute-Interaction Cell.

i. Organizing workshops, conferences and symposium with joint participation of the faculty and the expert from industries.
ii. Encouraging engineers from industry to visit and deliver lectures.
iii. Participation of experts from industry in curriculum development.
iv. Arranging visits of staff members to various industry.
v. Visits of faculty to industry for study and discussions or delivering lectures on subjects of mutual interest.
vi. Arranging industry visits of students to various industries.
vii. Professional consultancy by the faculty to industries.
viii. Joint research programmes and field studies by faculty and people from industries.
ix. Visits of industry executives and practising engineers to the institute for seeing research work and laboratories, discussions and delivering lectures on industrial practices, trends and experiences.
x. Memoranda of Understanding between the Institute and industries to bring the two sides emotionally and strategically closer.
xi. Human resource development programmes by the faculty for practicing engineers.
xii. Collaborative degree programmes.

Vocational Training from the Industry:

i. B.Tech. and M.Tech. Projects/dissertation work in industries under joint guidance of the faculty and experts from industry.
ii. Short-term assignment to faculty members in industries.
iii. Visiting faculty/professors from industries.
iv. Professorial Chairs sponsored by industries at the Institute.
a. Scholarships/fellowships instituted by industries at the Institute for
v. Practical training of students in industries.

Activities of Industry Institute Interactive Cell (I-I-I-C):
Research & Development: Technical Seminar / Workshop:
20 seminar / Workshop organized in the year 2012 by various departments of the college.
29 seminar / Workshop organized in the year 2013 by various departments of the college.
10 seminar / Workshop organized in the year 2014 by various departments of the college.

Enhancement of Employability: Conduction of mock Interview & GD sessions:

Mock Interview sessions have been conducted by Experts from Eminent Industries around West Bengal. Experts from Arcelor Mittal, Webel India, IBM India, Siemens, Electro steel Casting Limited, and Reliance Telecom have joined hands to contribute for the betterment in terms of making the students ready for the recruitment drive and also to provide a real time essence.

Conduction of Industrial Visit:

Industrial Visits been organized every year for the 3rd Year B.Tech students, where they physically visit an industry to learn the detail work process and the feel the working environment in real time.

Vocational Training from the Industry:

Vocational Training to every 3rd year B. Tech students was provided as a part of their curriculum and also to get an industry based training exposure. This is helpful for them to learn how the theories of work are to put into the application.

Experience through life projects:

Life projects are the real time platform of the students to perform and experience the on field problems and hands on solution of their own. That encourages and motivates the students to work and take decision on their own.

Teaching & Learning:

Industry personnel as member of different committee, such as Board of Studies (BOS), Internal Quality Assurance Cell (IQAC):

Experienced personnel form eminent industries have been included as a member of Board of Studies of our college to modify the syllabus / curriculum according to the modern day need of the industries. Industry personnel also been included into the Internal Quality Assurance Cell to assure and maintain the quality of the academia, infrastructure and facilities in the college.

Teaching by experts from the Industries:

Experts from industries been arranged to take special classes of the students to provide them knowledge on modern technological advancements and industry practices.

Industry personnel as Guide of Case Study of the students:

Students also get help from the industry experts to solving their case studies and also be a guide to the student's project.

Lecture on latest technology in the National / International seminar:

College has organized over 40 Seminars / workshops, 5 National Seminars and 3 International Seminars for last 3 years.

Introduction elective subject in the curriculum:

Being an autonomous institution our college has incorporated some changes in the curriculum of B.Tech to introduce modern and industry focused subjects to provide knowledge about recent industry practices.

		Strength & Resources of institutions for sustained networking with industries (i) Vigorous persuasion (ii) Passionate working (iii) Retention of faculties (iv) Students' performances in (v) corporate houses (vi) Students' performance during internships (vii) Enthusiastic and innovative research environment (viii) Invited corporate/ industry members in departmental "Board of Studies" (ix) CSR activities • **Improving faculty satisfaction with the academic matters, leadership, management and governance of the institution:** More liberty / independence in policy making and financial grant to be extended to managing committee
4.	**Staff**	• **Their role in improving Project Implementation:** The staffs are motivated to give full support in implementation of this project • **Improving their effectiveness and performance through professional training:** Skill Development Programs may be extended to staff
5.	**Senior management**	• **Development of any institutional strategic plan:** Establishments of 4 funds-- All 4 funds have been created; and a sum of Rs. 14.76 lakhs is presently balance in each of these 4 (four) Funds. Generation, retention and utilization of revenue generated-- It has been permitted by the BOG; Share of IRG between Faculty and Institute is in the ratio 60:40. Filling up existing faculty and staff vacancies-- Presently there is Zero vacancy. Delegation of decision making powers to senior functionaries with accountability-- Delegations have been made to the senior functionaries. • **Preparation for obtaining Autonomous Institution status if not yet obtained:** Getting Ready for applying for next autonomy • **Ensuring all programs are accredited:** **(a)** Accreditation of eligible UG, PG programs-- All eligible UG (6 in No.) & PG (4 in No.) are either accredited or applied for status. **(b)** Applied for Accreditation for all 8 programs in Tier I • **Capacity building for exercising academic autonomy once the autonomous status is obtained:** One workshop may be organized to create awareness of NBA requirement among all faculty members • **Improving Learning outcomes and employability:** Campus drive training/preplacement training for the students may be organized continuously

- **Organization and conduct of Finishing School:**
  - **(a)** Importance to Finishing School may be given
  - **(b)** EDP Programs may be arranged
  - **(c)** MSME Projects may be undertaken
- **Increasing Admission to Master and Doctoral Programs:**
  - **(a)** Admission Test for PG students may be conducted by the institution
  - **(b)** PG students may be allowed to sit in the campus selection alongwith the UG students
- **Implementation of Curricular Reforms:**

(a) Curricula revisions both in UG & PG under Autonomy structure are being done through BOS with participation of experts from renowned Academic Institutions, Universities and Industries. The revised curriculum in all technological disciplines is in place and has been implemented in the ongoing 3rd Semester of study in all existing programs.

(b) General Proficiency (GP) to be introduced as a credit course

(c) Mini Projects to be introduced from 1st year to 3rd year of B Tech Course

- **Increasing the no. of accredited programs:** Already applied for 8 UG Programs
- **Making Effective use of the findings from the students evaluation of teachers:**
  - **(a)** The system is in place; Faculties are being counselled after students' feedback. Students' feedback for Appraisal of the Faculty after completion of Even Semester is being done since 2013. Students' feedback across the Discipline has been taken since March'14.
  - (b) Much weightage has been given for the students feedback in performance appraisal of teachers

- **Increasing collaboration with Industry;**

SL.	No. Name of the Company	Company Address with Website Details	Allied Department of JISCE
1	Lawrence & Mayo	11, Government Place East, Kolkata - 700069, West Bengal. www.lawrenceandmayo.co.in	Dept. of CE, JISCE
2	Central Instituteof PlasticsEngineering& Technology	City Centre, P.O. - Debhog, Dist. PurbaMedinipur, Haldia - 721 657, West Bengal. www.cipet.gov.in	JISCE
3	Webtek Labs Pvt. Ltd.	4 LEE ROAD, KOLKATA-700020, West Bengal. www.webteklabs.com	Dept. of CSE, JISCE
4	WebmateInformations	A-11/460, Klyani, Pin 741235, West Bengal www.webmateinfo.in	Dept. of ECE, JISCE
5	Ardent Computech Pvt. Ltd.	CF-137, Sector-1, Salt Lake, Bidhannagar - 700064, West Bengal. www.ardentcollaborations.com	Dept. of CSE, JISCE
6	Globsyn Skills	Globsyn Crystal, Sector-V, Saltlake, Kolkata-700091, West Bengal. www.globsynskills.com	Dept. of CSE, JISCE
7	ElectrocareServices	3,Suren Tagore Road, Kolkata - 700019, West Bengal. www.electrocareservices.com	Dept. of BME, JISCE
8	PCS Global Pvt. Ltd.	145E, Swin Hoe Lane, Kolkata – 700042, West Bengal. www.pcsglobal.in	Dept. of CSE, JISCE
9	Institute for Steel Development & Growth	40, Chowringhee Road, Kolkata 700 071, West Bengal. www.steel-insdag.org	Dept. of ME, JISCE
10	Accendo Technologies Pvt. Ltd.	Accendo Technologies, Kolkata 700 053, West Bengal. www.accendotechnologies.com	Dept. of BME, JISCE
11	Tata Technology	Creative Learning and innovation center	JISCE
12	NASSCOM	Kolkata	JISCE (JIS Group)

		• **Improving institutional management capacity of senior faculty, head of department, deans and head of the institution;** i. The Principal and 4 other HODs/Sr. Faculty members attended management training program at IIM Lucknow and IIM Raipur. ii. TEQIP COORDINATOR attended QEEE workshop organized by NPIU and MHRD at India Habitat Centre in Nov, 2013 in Delhi and the QEEE program me has been implemented and continued in the month of March'14. Total six senior faculties have participated. iii. Nodal officer Finance attended e-FMR workshop at Mumbai on 12/06/2015. • **Strengthening the institution by improving institutional managements and governments and the institutional response to the TEQIP – II god governments program;** a) Transparency in the resolution of the governing body may be maintained. b) Views of stake holder including the students may be taken in the decisions concerned to them in the governing body.
6.	**Members of the governing body**	• **Fulfilling the requirements for obtaining autonomous institution status, if not yet obtained:** More liberty/independence may be extended to different committee like Finance Committee, Academic Council and Board of Studies of JIS College of Engineering. • **Making all the academic and administrative preparations for exercising academic autonomy as accorded under autonomous institution status:** Delegation of more power (both administrative and financial) to different senior functionaries is recommended. • **Exercise of administrative and financial autonomies as accorded by the sponsoring Government/Trust or Society:** May be implemented by the Trust. • **Delegation of decision making powers to senior functionaries with accountability:** It is recommended to implement. • **Reviewing the institution Strategies and plans for filling up teaching and staff vacancies:** Immediate steps to be taken to fill-up all vacancies. • **Reviewing the institution's incentives to faculty for continuing education, consultancy, research and development:** Provision for normal and accelerated upliftment is in place in faculty appraisal. Presently no CE program is in place. However, faculty member perusing Ph.D. in other Universities are provided with OD leave, no objection and reimbursement of Thesis expenses by following the TEQIP guidelines. Further it may be strengthen more. • **Reviewing the institution Strategies and plans for increasing the number of accredited programs:** The institution has applied for accreditation of 8 UG programs. Follow-up action may be taken. • **Enhancing Interaction and collaboration with Industry:** **(a)** Adequate steps have already been taken in this regard **(b)** Faculty members may be insisted to take industrial training at least for two weeks. • **Promoting Management capacity building of senior functionaries:** i. The Principal and 4 other HODs/Sr. Faculty members attended management training program at IIM Lucknow and IIM Raipur. ii. TEQIP COORDINATOR attended QEEE workshop organized by NPIU and MHRD at India Habitat Centre in Nov, 2013 in Delhi and the QEEE program me has been implemented and continued in the month of March'14. Total six senior faculties have participated. iii. Nodal officer Finance attended e-FMR workshop at Mumbai on 12/06/2015. It may be encouraged more.

- **Increasing revenue from Research and Development Projects and Consultancies:**
  Proper steps to be taken.
- **Reviewing research strategies, plans and key performance indicators such as increased no. of research publications in referred journals:**

Dept (2014-15)	National Journal	International Journals	Joint publication with national author	Joint publication with International author	National Conference	International Conference	Book Chapter
BME		02				02	
Chem		01				02	
IT		08				03	01
ECE		02					
EE							
EIE							
Phys		02				01	
Math							
HU							
CSE							
ME							
BA							
CA							
Total		**15**				**08**	**01**

- **Achievements of Goals and Targets for key performance indicators as given in the Institutional Development Proposal (IDP) and any institution strategic plan:**

Sl. No.	Indicators	Target values (in percentage) required to be achieved by the Institution within two years of the start of the Project (Date of signing the MOU)	Target Values (in number) required to be achieved by the Institution within two years of the start of the Project (Date of signing the MOU)	Target values actually achieved by the Institution as on Feb. 2016		Remarks
				(in number)	(in %)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Share of Supported eligible Programmes that are accredited plus applied for	75% UG and 60% PG	UG – 100% PG – 100%	UG-6 PG-5	100 83.33	
2	Percentage of institutes with Academic Autonomy	Already autonomous	Full Autonomy	Full Autonomy obtained		
3	(a) Increase in % of regular faculty with Masters degree in engineering disciplines of total engineering faculty in place, measured above baseline.		All faculties are with M. Tech	NA	NA	
	(b) Increase in % of regular faculty with Doctoral degree in engineering disciplines of total engineering faculty in place, measured above baseline	20%	20%	51	20.64	
4	Faculty position filled + (i) For Govt. Funded and aided institutions:	80% (with at least 70% on regular appointment and remaining on 11 months of longer contracts)	NA	NA	NA	
	Faculty position filled + (i) For Private unaided institutions:	100% (with at least 70% on regular appointment and remaining on 11 months of longer contracts)	100%	247	100	
5	Increase in the number of publications in the field of Engineering in referred Journals	1000 (+ 500 for 1.2.1) (*)	National-35 International-50	N-145 IN-400		
6	Transition rate of students from First year to Second year of under-graduate programs	45% (1 year)	45% (1 year)	575	86.27	
7	No. of Master's and Doctoral students enrolled with TEQIP funds in the project institutions during the project period	3350 (Masters) and 2000 (PhD) (*)	PG intake-172 PhD intake-30	PG-144 PhD-Nil		
8	IRG as % of total annual recurring expenditure	As per Institutional Development Proposal (IDP)	As per IDP	IRG-24.57 RE-2597.11 (Rs. in lakhs)	1.49	

*National target; + as per AICTE prescribed faculty-student ratio (MHRD norms will apply for NITs and CFIs)

- **Increasing transparency and openness of the governance process and discussion of issue that prevent further improvement of governance principles and practice:**

  The Transparency and openness of the governance is existing. However students views in policy decision (concerned to them) is recommended.

7.	**Industry representatives**	• **Industry participation in curricula revision and development of new curricula, in the reform of teaching and learning process to increase the employability of graduates and post graduates:** WordPress technology and MVC 5 may be included in the revised syllabus. • **Increasing exposures of students and faculties to industrial practices:** **(a)** In major projects co-guide may be taken from industries. **(b)** In major projects case studies may be encouraged. • **Increasing industries sponsored and joint research and development and consultancies:** Dues steps may be taken in this regard. • **Increasing enrolment of industry employees in Master's and Doctoral Programs:** Due efforts may be taken to liaison with the industries in gating the sponsored candidate. • **Increasing expert lectures from industry and securing adjacent faculty from industry:** Industry expert lectures are in place. However more no of industry offered elective papers are to be included in syllabus.
8.	**Head of the institution**	• **Progress in implementation various of the project:** **(a)** Utilization of allotted funds with budget adjustment is satisfactory. **(b)** Proper planning has been done for additional grant. • **Shortfalls in progress, if any and the steps that could be taken to increase the pace of implementation and achievement of targets:** **(a)** Employability of UG & PG student to be increased. **(b)** PG students may be allowed to sit in the campus selection along with UG students. • **Issues arising out of meeting with students ,faculty, staff and senior functionaries the recommendation made and progress in their compliance:** **(a)** Financial assistances may be extended for UG & PG projects**.** **(b)** Financial assistances may be given for consumable items for industrial research work. **(c)** Faculty members may be encouraged to take industrial training at least for two weeks. **(d)** Experience certificate may be issued to the PG students. **(e)** Electronics and Communication (EC) may be mentioned in the degree certificate issued to students of MCNT specialization. • **Problems faced in exercising autonomies and how these could be overcome:** **(a)** Issuances of Degree certificates to the students to be expedited.

Dr. K. C. Patra)
Signature of Mentor

Date: 18.03.02016

Annex 3: Mentor report Form (3)

Name of Mentor: **Prof. K. C. Patra** Dates of Mentoring Visit: **15th – 18th March 2016 (4th Round)**

Name of Institution with Location: **JIS College of Engineering, Kalyani, Nadia, West Bengal (Under the subcomponent 1.2)**

No.	Record of key points (Discussed with head of the institution, chair of the governing body)	Institutional response	Note of Any Follow-up needed by Mentors, SPFU, NPIU
1.	**Fulfilling the requirements for obtaining autonomous institution status, if not yet obtained.**	The institute enjoying academic autonomy	SPFU and NPIU may help in extending further financial and administrative autonomy.
2.	**Making all the academic and administrative preparation for exercising academic Autonomy as accorded under autonomous institution status.**	Some interim steps are taken.	The function of senior functionaries to be reviewed time to time.
3.	**Exercise of administrative and financial as accorded by the sponsoring Government /Trust or Society**	It is the purview of the Trust.	
4.	**Delegation of decision making power to senior functionaries with accountability**	The institution have doesn't have any objection	
5.	**Reviewing the institution strategies and plans for filling up teaching and staff vacancies.**	The institution has taken proper steps.	It is to be expedited.
6.	**Reviewing the institution Incentives to faculty for continuing education, consultancy, research and Development**	The institute needs to take more steps in this regard.	May be reviewed time to time.

7	**Reviewing the institution strategies and plans for increasing the number of accredited programmes**	The institute has applied for accreditation of 8 UG programs.	
8	**Enhancing Interaction and collaboration with Industry**	The institution has taken proper steps.	SPFU and NPIU may help in this regrad
9	**Promoting Management capacity building of senior functionaries**	The institution has taken some steps.	
10	**Increasing revenue from Research and Development Projects and Consultancies.**	The institution needs improvement in this regard.	
11	**Reviewing research strategies, plan and key performance indicators such as increased no. of research publications in referred journals.**	Performance of the institution is satisfactory	The institute may be encouraged.
12	**Achievements of Goals and Targets for key performance indicators as given in the institutional development proposal (IDP) and any institution strategic plan.**	Progress is satisfactory	It may be reviewed regularly.
13	**Increasing transparency and openness of the governance process and discussion of issue that prevent further improvement of governance principles and practice**	It exists to some extent	

Date: 18.03.2016

(Dr. K. C. Patra)
Signature of Mentor

From:

Dr.K.C.Patra,
Ex – Principal,
HIG – 119, Phase – 7,
Sailashree Vihar,
Bhubaneswar – 751021.
Email: kcpatra47@rediffmail.com
Kcpatra47@gmail.com
Mob.: 09437087770

To

Mr.A.U.Digraskar,
Central Project Adviser,
National Project Implementation Unit(NPIU)
email-npiuwb@hotmail.com, Mob: No. 0991093290

Sub: Mentors Report (3rd Round) for TEQUIP-II.

Ref: Your email-npiuwb@hotmail.com dated 15/01/2014.

Sir,

Enclosed please find herewith the Mentors Report (3rd Round) for TEQUIP-II, on my Third visit to JIS College of Engineering, Kalyani, Nadia (W.B) from 9th to 13th June 2014.

For favour of your kind perusal.

With regards.

17/6/2014

Yours faithfully

Prof. (Dr.) K. C. Patra.

Dated:17th June' 2014.

1. Copy with copy of enclosures submitted to: Dr. S. Dasgupta, Head of SPFU, WB & Director of Technical Education, Govt. of West Bengal.
   Email: spfu_wb@yahoo.co.in, dasguptasajal@yahoo.com, Mob: 09830134836
2. Copy with copy of enclosures submitted to: Prof. B.K. Saha, Project Coordinator & Advisor, Academic.
   Email: bksaha_bec@yahoo.co.in, Mob.No. 09433673481
3. Copy with copy of enclosures submitted to: Prof. (Dr.) A. Guha, Director, JIS College of Engineering, Kalyani,Nadia, (W.B.) E.mail: drasit_guha@yahoo.co.in
4. Copy with copy of enclosures submitted to Dr. U. Bandyopadhyay, Principal, JIS College of Engineering, Nadia, W.B, E.mail: principal.jisce@jisgroup.org., Mob: 09433482310
5. Copy with copy of enclosures submitted to: R. P. Duari, Registrar, JIS College of Engg, Kalyani, Nadia, West Bengal. E.mail: rp.duari@jisgroup.org, Mob: 09432012689
6. Copy with copy of enclosures submitted to Dr. S. S. Gupta, Nodal Officer (Academic), HOD (CSE) & TEQIP Coordinator. E.mail: gsomsubhra@gmail.com, Mob: 09836545777

Mentor's Reports

Name of the Institution and location: **JIS College of Engineering, Kalyani, Nadia, West Bengal.**

Dates of the visit: From 9th **to 13th June 2014 (Third Round).**

Name of the Mentor: **Dr. K. C. Patra.**

A. Interaction with UG students

Issues and suggestions that emerged.	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
Past Visit - (28th to 31st January 2013)		
i) No. of Volumes and No. of new titles of books to be procured in the library.	All the points **i)** to **vi)** was narrated & recommended to take proper steps in this regards. The management was requested to provide grant for purchase of new equipments since TEQUIP-II does not provide the same.	**(i) Year / Volume of books / Title of books** **2011-12 — 3898 — 148** **2012-13 — 11807 — 306** **2013-14 — 7652 — 216**
ii) New equipments and additional equipments to be procured as per the revised syllabus.		**ii)** 59 nos of equipments / sets of cost Rs. 65,60,298 have been procured and few more are in process to be purchased.
iii) Campus recruitment to be strengthen.		**iii) a)** The institute has signed MoU with 14 nos of industries and 5 nos of institutions in the country and abroad. **b)** The institute is accredited by 6nos of industries. **c)** 274 no of students were placed in 2013-14.
iv) Wi-Fi connection to be provided in the campus.		**iv)** Wi-Fi of 50MBPS capacity has been connected in the campus
v) Some faculty members need to be trained for developing their teaching ability.		**V)** Good no of faculties have undergone training.
vi) Vacant post of faculty in Civil & Mechanical Engg. to be filled up.		**Vi)** All the vacant posts were filled up and Zero vacancy is maintained in the institute II no of posts in ME and 7 no of posts in CE were filled up.
Past Visit: 7th January to 10th January 2014		
i) The PC through which catalog of books are accessed sometimes not working .	All these points were narrated and recommended to **(i)** have stand by P. C for library.	Assurance from the head and other senior functionaries of the institute got to look into these three recommendations.
ii) Wi-Fi connection to be extended to Hostels.	**ii)** Wi – Fi connection to be extended to hostels.	
iii) Hostels maintenance to be improved.	**iii)** Faculty members may be involved in hostel management.	
Present Visit: 9th June to 13th June 2014		
i) Wi-Fi connection be available for 24 hrs in the hostels. ii) Policy for issuance of Books from lending library/Book Bank to be reformed at least suggestion/ representation may be taken from students. iii) Internship training for all students be arranged by IIIPC / T&P Cell. iv) Status of placement may be informed to the students.	All these points were narrated and recommended to the head of Institute.	Assurance from the head and other senior functionaries of the institute got to look into these recommendations.

Representation of faculties and students from every deptt. may be taken in the placement committee. More no. of branded and renowned companies be invited for campus selection. v) Equipments in labs. be well maintained and in particular for VLSI, Digital Comm. and Measurement lab. Etc. vi) Sport activities be encouraged and Play ground be well maintained. vii) Medical facilities to be provided to the students. An Ambulance be provided in the college Campus.		

B. Interaction with PG Students.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
Past Visit: (28th to 31st January 2013)		
i) No. of volume and No. of New titles of some books to be procured for Book Bank of the Central Library.	It has been appraised on the issues raised by the P.G. students.	i) No. of volumes and no. of new titles of book have been procured to the book bank.
ii) Campus selection for P.G. students to be provided.		ii) Campus recruitment for PG Students has been considered.
iii) Preparatory leave of two weeks to be allowed before semester examinations.		iii) Two Weeks preparation leave is allowed for semester examinations.
Past Visit: 7th to 10th January 2014		
i) More no of computers with updated configurations to be procured for diff. deptts. particularly for CSE, IT and Biomedical Engg.	i) All these issued were discussed and recommended to look into these issues.	These issues shall be looked into.
ii) Laboratory furniture to be maintained.		
iii) More lab space for CSE, IT and AEI deptt. to be provided.		
Present Visit: 9th June to 13th June 2014		
i) After completion of their PG course the students may be given opportunity to appear interview for selection of teaching post of the institute. ii) The PG students sent/ allowed for attending the conference /seminar may be marked present on these days and their Assistance ship may not be deducted for these days. iii) For expert lecturer class the students are sent to other institutes of JIS group where super specialists are available. The students suggested to recruit such subject experts in this institution.	All these issues were discussed and recommended to look into the matters.	i) All the issues and suggestion those were emerged in the interaction with PG students earlier have been fulfilled. ii) Present issues shall be considered favourably.

C.(I) Interaction with the faculties.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
Past Visit:- 28th to 31st Jan 2013		
(i) Purchase of new equipments needed for R&D work is essential.	These issues were discussed and recommended to take proper steps in this regard.	(i) 7 nos. of R&D and RPS projects have been under taken from different agencies like DST CSIR and AICTE etc. where required equipment have been purchased.
ii) Vacancy in CE and ME		ii) The institute is now maintaining zero vacancy status.
Past Visit:- 7th to 10th January 2014		
i) Staff should be informed as and when the books are procured in the library on their requisition. ii) More no of E-Journals to be procured. iii) JIS should considered as place of research and the faculties scholars registered for Ph.D are to be permitted to take their course work in JIS iv) Regular advertisement for Ph.D registration to be floated by WBUT.	i) All these items (i) to (iv) were discussed and take up issues on (i) and (ii) by the institute and items (iii) & (iv) are to be taken up with the WBUT	i) Items (i) and (ii) shall be resolved by the institute items (iii) and (iv) are to be taken up with WBUT
Present Visit: 9th 13th June 2014		
i) Subscription of E Journals eg. IEEE, Supringer, Elsevier, Taylor Francis. Inder Science etc. may be continued. ii) Representatives of faculty and students from every dept. may be kept in the library committee, so that there may be transparency in the policy decision related to library. iii) WBUT should permit the teachers having PhD Degree in Physics, Chemistry, Math, Biomedical and IT to be Ph.D supervisors /Guide as it has been allowed for other Engg. teachers.	On the issue of (iii) principal/Head of the Institute may write a letter to WBUT.	i) Almost all items recommended earlier were full-filled. (ii) WBUT may be requested to take up issue stated in (iii)

C.(II) Interaction with Alumni.

Past Visit 7th 10th January 2014		
Issues and suggestions that emerged	**Recommendation made by mentor to the Head of Institution**	**Progress in implementation of recommendations made during the previous visit**
i) More lab space and more no of computer terminals with updated configuration to be provided to CSE & IT deptt.	All these items were discussed and recommended to take suitable steps in this regard. It is also recommended to go solar system for power back up.	The proper steps shall be taken up.
ii) Power Backup for comp. lab to be provided.		
iii) More no of P.Cs to be provided to Electrical Circuit and Control lab.		
iv) QUALNET software with multi-user facilities (Research Version) to be provided to the ECE deptt.		
v) Projectors to be provided in class rooms and laboratories.		
vi) Camera may be fitted in classrooms.		
Present Visit: 9th to 13th June 2014		
i) One / two dedicated rooms may be allotted to MBA deptt. ii) Water cooler / filter may be provided at least one in every floor of the institution. iii) Toilets of the institute to be properly & regularly cleaned.	The mater has been discussed with the Head of the Institute.	The management shall take up these issues and do the needful.

D. Interaction with the Staff.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
Past Visit: 28th to 31st January 2013		
Many staff members are interested to take training in NITTTR, Kolkata.	Technical staffs are to be sent for training.	i) 29 nos of faculties have taken training on routine maintenance of both existing and new laboratory equipments. ii) 27 nos of Administrative and support staff have taken training on use of Modern office equipments, software office automation, maintenance of records, procedures etc.
Past Visit: 7th to 10th January 2014		
i) Graphics Lab. in ME deptt. to be provided with a projector.	Recommended to take up these steps in this regard.	Necessary steps shall be taken up.
ii) Training on finance, Materials and Library to be provided.		
Present Visit: 9th to 13th June 2014		
i) Present Reading room attached to central Library is of 140 capacity may be air conditioned. ii) E-journals for Else Vier and Springer & Inder Science to be added with what is being subscribed now. iii) A/c in the server room for Central Library to be repaired and maintained. iv) Some equipments to be procured for diff. Laboratories of some departments eg. Phase shifter and carbon filament Lamp for Elect . Engg. Lab. v) Ambulance may be provided in the campus for the staff and the students either in the hostel or in the institute. vi) Wi-Fi connection to be available in the hostel. vii) Alternative source of energy of higher capacity eg. solar backup may be provided in the institute. viii) Cuts section Models for E.M/c may be available in the EE lab. ix) UPS may be provided for the PCS kept in EE lab. x) Scanner may be provided in the T&P section.	Recommended to take up necessary steps on these issues.	Needful action shall be taken

E. Interaction with Senior Functionaries of the Institution.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
Past Visit: 28th to 31st January 2013 & 7th to 10th January 2014		
i) Accreditation by National Assessment and Accreditation Council (NAAC – UGC). ii) Accreditation by National Board of Accreditation (NBA – AICTE). iii) **Autonomy Granted by UGC** & conferred by WBUT of UG & PG programmes.	Status of the Institute in Autonomy, Accreditation of different programmes are summarized and documented.	i) Accreditation by NAAC: For 5years i.e. 15.06.2009 to 15.06.2014 accreditated on a four point scale at B-Grade. ii) **Accreditation by NBA*:** a) **B.Tech:** **(1)** ECE-2years from 04.01.13 to 04.01.15 **(2)** CSE–2years from 04.01.13 to 04.01.15 **(3)** EE- 2years from 04.01.13 to 04.01.15 **(4)** BIO Medical Engg. – 3years from 21.06.10 to 21.06.13 **(5) EI: Applied for renewal** **(6) IT: Applied for renewal** b) **P.G. (M.Tech):** **(1)** EE-ED & PS – 3years from 04.01.13 to 04.01.16 **(2)** MC & NT – 3years from 04.02.13 to 04.01.16 iii) Autonomy: Granted by UGC from 2011 – 12 to 2016-17 (6years). Conferred by WBUT from 02.08.12 to 02.08.17 (5years) a) **UG:** (1) Biomedical Engg. 60 students (Intake) (2) Civil - 60 (3) CSE – 120 (4) EE – 90 (5) EC – 120 (6) EI – 90 (7) IT – 90 (8) ME – 120 b) PG (1) ME – 18 **(2)**EE - Electrical Drives & Power Systems – 18 **(3)** CSE – 18 **(4)** Biomedical Engg. – 18 **(5)** AEI – 18 **(6)** Mobile Communication & Network Technology – 18 **(7)** Nano Science & Technology – 18 **(8)** Software Engg. – 18
Present Visit: 9th to 13th June 2014		
i) Application for NAAC i.e. self study Report (SSR) has been received by NAAC on 25/03/2014. ii) Accreditation visit by NBA was fixed on 9th to 11th May 2014 and it is postponed to a later date.	Status of the Institute in Autonomy, Accreditation of different programmes are summarized in the right hand side column.	i) steps have been taken for re-accreditations by NAAC. ii) Steps have been taken for re-accreditation by NBA

F. Interaction with chair person and / or member of BOG.

Suggestions / views/decisions given	Progress in implementation of suggestions/views/decisions. If implementation delayed or progress in implementation unsatisfactory; given the reasons for the same.
Past Visit: 28th to 31st January 2014	
i) To provide adequate grant to procure equipments for new and existing PG Labs and for R&D works since TEQIP II does not have any provision under this head.	i) The Institute has been funded by the Group for modernization/Maintenance of its Laboratories from Time – to Time (E.g. The MODROB MI lab was established during 2008-09. The cost of renovation of both the High end Server (Dell Power edge R900) and printer (HP dtn 5200 Network Laser). • The new set up has been made Dept. of ME – A number of new laboratories and workshop has come. Dept. of CSE - IT project and Hardware Training Lab. • New LCD projectors as Audio-Visual Teaching aids has been provided to EE, ECE, CSE, IT department. So far any kind of procurement has been funded by the Trust except for some MODROB labs and RPS projects granted by funding agencies. (AICTE/DST etc.).
ii) Wi-Fi connection to be provided in all places of the college campus including hostels.	ii) Already set up in the Administrative Zone, Laboratories. Technological Disciplines, Libraries and the Departments during June-July, 2013. Extension has been made to the Hostels.
iii) To fill up all existing faculty vacancies of the college particularly in ME and CE departments.	iii) Process of Recruitment is continuous and based on suggestion of the Mentor announcement has been made for the aforementioned as well as other department for filling up few vacancy positions.
iv) To ensure students participation in all committees except finance	iv) Students are incorporated in most of the statutory committee for curricular, Co-curricular and Extra curricular viz. Library Committee, Sports Committee.
v) To form own Committees like BOG, BOS, Finance.	v) Under Autonomous Framework every technological disciplines has formed its own Board of Studies which are all functioning for Curriculum Revision and Restructure and Syllabus construction. The BOS have been formed separately for the UG and PG courses in the Departments. • **Board of Governors has been functioning well with the composition of members as per the direction of UGC given in the book let.** • All statutory and Nodal Committees provisioned under TEQIP has been formed and functioning viz. Academic Activities Committee, Training and Research Committee, Industry-Institute Partnership Committee, Procurement Committee, EAP committee, Monitoring and Evaluation Committee including Finance Committee.
vi) To sign MOU with different committees for R&D activities	vi) Initiatives has been taken to sign MOU for joint/collaborative alliance in R&D activities. The discussion has been going on for R&D works. This apart Institution has MOU with number of Industry Housed (ranging

	from Japanese Language ES to Microsoft MSDN, IBM, WIPRO, TCS etc.).
vii) For Consultancy work in CE Department.	vii) The follow up measures has been taken. Two experts visited the department as consultant. Mr. Peter Crotz in Township planning visited the department during International Conference IC3A-2013 • Since the Department is comparatively newer one and since passed out batch is yet to come, the Research and Consultancy activities will speed up gradually.
viii) To conduct Staff Development Programme (In house) in every department.	viii) Following the advice, in house Staff Development Programmes are organized. Besides staff development programme are encouraged externally during Last week of June-first week of July in British Council.
ix) To arrange for management people, management training & software training.	ix) The following measures has been taken: • Towards Institution management capacity enhancement Principal and HOD, ME participated in the IIM Lucknow organized Training Programme at Noida extension. PNO (Finance) is all set to participate. The other HODs and administrative people will join it soon. The schedule has been made and communicated to SPFU. • Good Goverance workshop has been organized under TEQIP for idea sharing on role of HODs. The participants were from various Institutions under JIS Group. • TEQIP Nodal officers are going through PMSS, FMSS and MIS web based Software Training which they have been sharing with their respective Nodal Committee members.
x) To revise curricular in every three years.	x) Since obtaining autonomy and maturing through its 2nd session of autonomous structure the newly framed curriculums are in practice.
xi) One Teacher / Mentor / Proctor may be allotted with minimum 20 number of students.	xi) Student Mentorship programme already in Practice.
xii) The syllabus has to be revised as per Washington accord and somewhat details by the Dayaratnam Committee. Provision for Basic Science, Humanities, Management, Core Subjects, Professional electives and free electives subjects to be given with about 200±10 credit points.	xii) All the BOS of Technological disciplines have been restructuring the curriculum according to the AICTE guideline in the line of Washington Accord with stipulated hour allotted to Basic Science, engineering Science, Humanities, Management, Professional Core, Professional Electives and free electives.
xiii) To undertake project for UG & PG which are related to Industries or of Industrial applications.	xiii) Initiative has been taken in the current session so as to encourage it further in the line of converging projects to products and commercialization of products.
xiv) To encourage research which have industrial applications.	xiv) Ph.D. is yet to be granted by the affiliating University. Faculty research and Post Graduate dissertation are encouraged to emphasize and incorporate more and more industrial applications.

xv) Regulation for Ph.D. has been prepared but Ph.D. programme are yet to be started with the approval of regulation by WBUT	xv) Depend on Regulatory Bodies and affiliating Universities.

Past Visit: 7th to 10th January 2014

i) Adaption of Good Governance

ii) WBUT should allow JIS college of Engineering as the place of Research both for Engg. & Basic science.

iii) Inclusion of student members in BOS.

Proceedings of the Meeting Between Mentor, TEQIP, Prof. K.C. Patra & the Board of Governors of JIS College of Engineering held on 07.01.2014 at 3:00PM at Meeting Room of the College.

Members Present:

1. Prof. K. C. Patra	-	Mentor, TEQIP - II
2. Prof. S.M. Chatterjee	-	Chairman, BOG
3. Dr. Asit Guha	-	Director, JIS Group, Member-BOG
4. Mr. U S Mukherjee	-	Dy. Director, JIS Group, Member-BOG
5. Dr. S. K. Mitra	-	Prof. Dept. of EE, Member - BOG
6. Dr. S. S. Gupta	-	Asst. Prof. Dept. of CSE, Member-BOG
7. Ms. S. S. Ghosh	-	GM-Corporate Relation, Member-BOG.
8. MR. R. P. Duari	-	Registrar, JISCE
9. Dr. U. Bandyopadhyay	-	Principal, JISCE –**Member -Secretary**

- The Chairman welcome all the members and announced that quorum is formed; hence called the meeting in order.
- Prof. K. C. Patra, Mentor – TEQIP enquired about the policy decision which have been taken by Governing Body.
- The Mentor requested to send him the self review report of governance.
- The Mentor advised to follow the Expert Advisor Group guidelines.
- The Mentor enquired about the procurement of new equipments. The Principal informed that in NST Lab. 2 equipment procured, one from Japan. ME department procured some equipments and the process is going on. He also informed that books, e-books, e-journals and some software are also under procurement under TEQIP under new guidelines. Chairman suggested to procure more equipments out of college fund.
- The Mentor enquired about the wi-fi connection. It is informed that the wi-fi is connected in the campus.
- The Mentor enquired about the vacancy of faculty specially in the department of ME an CE. It is reported that faculty recruited in both departments.
- The Mentor advised to include the students and experts from industry, as the member of BOS. He also suggested to place an agenda before BOG to include the student as the member of BOS.
- The Mentor enquired whether the Ph.D work regulation problem is overcome or not. It is reported that the problem is partially overcome.
- The Mentor suggested to send a request letter to Vice Chancellor, WBUT to regularize the Ph.D work in the college campus including conducting course work at JISCE, Kalyani.
- Mentor wanted to know about the update report regarding MOU with industries. It is reported that 7 MOU newly signed with different Industries.

Present Visit: 9th to 13th June 2014

i) Self Review on adaption of Good Governance to be sent to the Mentor for his comments ii) Internship training to be arranged for all UG students.	Proceedings of the meeting of the Mentor with BOG members on 11/06/2014. **Members Present:** 1. Dr. Asit. Guha, Director 2. Dr. U. Bandyopadhyay, Principal 3. Dr. S K Mitra, HOD (EE)

Patra

iii) Wi-Fi connection to be available for 24 hrs. in the hostel in addition to the availability of the same in the institute. iv) Lab. Equipments to be well maintained in the Laboratories of all depts. so that the students in a smaller size. Group maximum 5 can work in the laboratory. v) There should be student and staff representatives of all depts. In the T&P cell and more no. of renowned and branded companies may be invited for campus recruitment. vi) Internal Medical facility may be provided in the institute campus as well as in the hostels. An Ambulance service may be available for 24hrs in the campus. vii) Student representatives may be taken in the Library committee and in particular for the policy decision regarding Lending library / Book bank. viii) Present Reading Room of 140 capacity may be provided with A/c. ix) More no. of E-Journals may be subscribed including IEEE, springs, Else Vier, inder science etc. x) Generator or Solar back up of higher capacity may be installed in different places in particular the T&P section. xi) The PG students may be given a scope of appearing the interview in JIS after completion of their M.Tech course.	4. Mrs. Sila Singh Ghosh, Corporate General Manager. 5. Shri R P Duari, Registrar. Dr. K. C. Patra, Mentor, initiated discussion as a part of the 3rd round mentoring program of the TEQIP institution. He discussed different issues over phone with Dr. S M chatterjee, chairman of the BOG. The following points were discussed. • As per suggestions equipments for R&D have been procured under institution fund. • Wi-Fi connections are there in the college campus. But the same could not be provided to the hostels yet due to some problem like crossing municipality road in between the college and the hostels. However the problem will be solved shortly when the said connection will be extended to the hostels. • Participation of students in some committee e.g. SLC, Library Committee etc. except BOG are there. • List if MOUs with the industry for students activities are already there; the list will be provided as requested. • List of FSD in-house programs, seminars and conferences organized are to be placed. • Students mentoring program are already there with 20 students tagged with each faculty member. • UG/PG students' project should be 80% industry related. • Good Governance Development Plan has been initiated. • Minutes of the BOG meeting are being displayed in the institution web-site. The following are some recommendations made by the Mentor for possible implementation. • Hardwares should be provided out of institute' own fund required to utilize the software procured under TEQIP. • Wi-Fi connection problems to the hostels to be sorted out early. • Students placement data to be provided. • Equipments in some of the labs are not well maintained; these are to be maintained. • Ambulance facility in the college is not there. But there are three hospitals nearby. • Use of reading room in the library with 140 capacity may be provided with AC. • Some more E-Journals to be provided in the library. • Facilities of EPBX, Fire Extinguisher, Solar light, Play ground are already there. Which may be properly maintained. • Institute already possesses ISO certification, NAAC and NBA accreditation. • Facility of Generator with 125KVA and another 62.5 KVA capacity already available. • PG assistance ship being provided to PG students. The meeting ended with thanks to the participants.

G. Interaction with Head of Institutions and the Project Coordinator:

All the points stated in A to F have been discussed and suggested to take necessary steps for expediting the project performance.

Brief notes of the Mentor
(Third Round Visit from 9th to 13th June 2014)

Meeting with the students (UG&PG), Alumni, Nodal Officers, Project Coordinators, Registrar, Principal, Director, Board of Governors, Chairman BOG, **(Observations, Suggestions & Recommendations:)**

INSTITUTIONAL REFORMS (ACTIVITIES)

a) Curricular reforms:

Curricula revisions both in UG & PG under Autonomous structure are being done through BOS with participation of Experts from Lead Universities and renowned Academic Institutions, and Industries.

The revised curriculum in all technological disciplines is in place and has been implemented up to the ongoing 4th Semester of study in all existing programs.

The revised curriculum has been framed by the respective BOS by following the procedure of construction of Programme Educational Objective and Programme Outcome and by taking into consideration the Stakeholders feedback.

b) Improved students' performance evaluation:
It is already in place through periodical internal tests and continuous performance evaluation.
The result has been used in attainment of Programme Outcomes and thereby Continuous improvements in Programme educational objective.

Continuous performance Evaluation has been implemented in Even Semester 2013 and the Evaluation Diary for Odd Semester 2013 has been circulated.

Odd Semester 2013 Evaluation report has been received.

The mentorship programme has been implemented in an improved way and mentorship forms have been collected. This contains the information about interactions between students and their faculty mentors.

c) Performance appraisal of faculty by students:

The system is in place; Faculties are being counseled after students' feedback. Students' feedback for Appraisal of the Faculty after completion of Even Semester 2013 has been done. Students' feedback across the Discipline has been taken in March'14.

d) Faculty incentive for continuing education:

Provision for normal and accelerated upliftment is in place in faculty appraisal.
Presently no CE program is in place.

However, faculty member perusing Ph.D. in other Universities are provided with OD leave, no objection and reimbursement of Thesis expenses by following the TEQIP guidelines.

Some Faculty members has been empanelled and few more applied for empanelment for Ph.D. scholar guidance.

e) Accreditation of eligible UG, PG programs:
All eligible UG (6 in No.) & PG (4 in No.) are either accredited or applied for status.

f) Establishment of 4 funds:
All 4 funds have been created; and a sum of Rs. 8,36,834/- is presently balance in each of these 4 (four) Funds.

g) Generation, retention and utilization of revenue generated:
It has been permitted by the BOG; Share of IRG between Faculty and Institute is in the ratio 60:40. Revenue obtained from funding agencies in R&D (RPS projects etc.); however that has been yet to be generated in Consultancy.

h) Filling up existing faculty and staff vacancies:
Presently there is Zero vacancy.

i) Delegation of decision making powers to senior functionaries with accountability:
Delegations have been made to the senior functionaries.

SUMMARY OF ACTIVITIES REPORTED ON EQUITY ASSURANCE (EAP) FOR TEQIP II: SUBCOMPONENT 1.2 FROM JANUARY 2014 TILL DATE.

1. Several initiatives were taken for fulfillment of the EAP under TEQIPII: Subcomponent 1.2 as per guidelines laid down by SPMU for the period **January 2014 till date** as well as betterment of students and the college as a whole.
2. As a part of the initiative towards development of academically weaker students the 2013-2014 B.Tech entrants were screened based on their 1st semester results and nearly 100-120 no. of students were identified who had performed some kind of weakness in the academic subjects. Both theoretical and practical.
3. Special tutorial and remedial classes were arranged for the above mentioned students for enhancement of knowledge and better performance.
4. For the year 2013 entrants though screening and corrective measures have been planned in several steps to ensure complete identification and monitoring of students academically weak in certain subject.

Steps for improvement of academic performance:

a. Counseling just after admission and prior to commencement of classes for 1st year 2013 B. Tech entrants.
b. Screening based on counseling and Higher Secondary marks in concerned subjects.
c. Orientation program to be carried out by the respective departments as identified by the above mentioned counseling process.
d. Remedial class every fortnight and continuous and continuous monitoring by concerned Departmental HOD and faculties assigned for the classes (provision for remedial class to be reflected in schedule routines for 1st year classes).

A special Induction Program for a period of 12days for 1st year entrants has been arranged for improvement of technical skills and theoretical knowledge commencing 1st August 2013 – 12th August 2013. Involving external experts and Internal Faculty Experts.

Steps for Evaluation:

a. Monthly surprise tests
b. Schedule Internal Test as per academic calendar
c. Semester Examination

Some steps are cited follows:

1. Establishment of Finishing School – its composition:

Finishing School aimed towards Soft Skill Development, Analytical Skill Development and Technical Skill Development is functioning with the following constituent members.

1. Prof. U Bandopadhyay – Principal & Chairman.
2. Mrs. Shila Singh Ghosh – GM, Corporate Affairs – Convener.

3. Shri R P Duari- Registrar.
4. Dr. Meghamala Dutta – Nodal Officer (EAP)
5. Shri. Arindya Guha – HOD Humanities Dept.
6. Shri. Shantanu Mondal – Nodal Officer (Finance)
7. Dr. Somsubhra Gupta- Nodal Officer (Academic)

2. **Identification of academically weak students Diagnostic checdks (Male, female, SC/ST, Physically Handicapped etc.):**

1. No. of Diagnostic Test already taken – 07
2. No. of Diagnostic Test projected in 2014-12

3. **Remedial teaching – No. of students covered, man-hours involved, no. of classes conducted.**
(From January 2014 till date)
Phase IV (On Saturdays from 8th Feb to 1st March 2014)
1. No. of students involved - 86
2. No of Persons involved - 03
3. No. of hours involved/day - 05
4. No of Days involved - 04

Phase V (02/01/14-10/02/14)
1. No. of students involved – 16
2. No. of Persons involved – 01
3. No. of hours involved/day – 04
4. No. of Days involved – 09

4. **Improvement of transition rate and pass rate of students.**
2013-14 – Data will be available after semester exams are over and results declared (tentative July 2014).

5. **No. of specialized soft skills and professional skill development training conducted during semester break and vacations.**
3 No. programs for (i) Technical Skill Development, (ii) Soft Skill & Communication Skill Development & (iii) analytical Skill Development have been started in since January 2014 involving 150 students.

6. **No. of High Intensity Training conducted (at least 4 weeks duration) for development of soft and professional skills in the students that graduate but fail to secure any employment.**
Nil

7. **No. of campus Interviews organized for weak students by non criteria companies – 16**
Eg. (1) Traetee (2) Genpact (3) Cascent (4) VAT Technologies, (5) ANSH Infra solution, (6) Cyber Astro.

FACULTY AND STAFF DEVELOPMENT PROGRAMME: (Changes/Progress observed between January to June 2014 written italics).

a) **Faculty members training in subject domain:** ***83***nos of faculties have participated either in Workshop/Training programmes.

b) **Upgrading qualification of faculty members:** ***32***nos of faculties got benefits in support for paper publication/Ph.D registration/ Thesis submission.

c) **Faculty training in management capacity development:** HOD(ME), the Principal and the Nodal Officer (Finance) have attended the Institutional Management capacity Enhancement program at IIM Lucknow (Noida Campus).

TEQUIP COORDINATOR attended QEEE workshop organized by NPIU and MHRD by India Habitat Centre in Nov, 2013 in Delhi and the QEEE programme has been implemented and continued in the month of March 14. Total six departments have participated.

d) **Training of Nodal officers at SPFU:** Nodal officers Academics, Finance and Procurement received regular training assigned by SPFU.

e) **Training of technical staff:** ***30*** nos. of staff have taken part in such programmes.

f) **Training of administrative / support staff:** ***30***nos. of staffs have undergone training in use of modern office equipment, software office automation, maintenance of records and procedures etc.

g) **Organizations of Seminar, Conference, Workshop and Symposium:** 25 nos. of faculties have taken part in such programmes.

30 (including 2 International Conference) in-house programmes have been organized.

145 nos. (considering more than one participation of a single faculty) of International Conferences have been attended by faculty member either through participation or paper presentation.

109 nos. (considering more than one participation of a single faculty) of International Conferences have been attended by faculty members either through participation or paper presentation.

h) **No. of research projects undertaken by the faculty individually / jointly / collaboratively expected outcome of each project:** 07nos (one project sponsored by DST, one by CSIR and one by Institute of Engineers and 04 by AICTE RPS projects).

11 nos. of Additional UGC-Minor projects has been approved by UGC in March 2014.

i) **Pedagogical training of faculty:** *A three phase Basic Pedagogy training has been finalized with NITTR, Kolkata from 16th June to 5th July 2014.*

j) **Number of research papers published since 2010:** National 145 (Journal +Conference Proceedings) & International *376* (Journal + Conference Proceedings)

SOFT COMPONENT ACTIVITIES:

(a) Teaching and Research Assistance ship:

1. **(i) No of existing M.Tech courses: No. of existing M.Tech courses: 04**

   (ii) Sanctioned intake for each, year of introduction of courses: EDPS (EE) – 18(2006)

   MCNT (ECE) – 18 (2006)

   CSE – 18 (2008), IT – SE – 18(2008)

2. **(i) No. of New M.Tech courses introduced: 04**

   (ii) Sanctioned intake of each, year of introduction of course: EIE – 18(2011)

   BMI – 18 (2011)

   NST – 18(2012)

   ME – 18(2012)

3. **No of non – Gate students admitted in the academic session 2012-13 in each course:**

   EE-17, ECE – 06, EI - II, CSE - 16, BMI-02, NST - 02, IT-SE – 05, ME – 01.

4. **No. of non-Gate students received Teaching Assistance ship and total amount:**

   71 (42 **1st yr promoted to 2nd yr and 29 2nd yr of session 2012-13 passed out in June, process of including new 1st yr students initiated. Amount** ***Rs. 79.52 lakhs.***

b. Research and Development:

1. No of research projects under taken by the faculty individually, jointly and collaboratively. Expected outcome of each project.	07 (One project sponsored by DST, one by CSIR and one by Institute of Engineering and 04 more by AICTE RPS projects) ***11 no. of Additional UGC – Minor projects has been approved by UGC in March 2014. All to be supervised individually.*** **1. Title:** In Silico design of novel molecular rectifier and spin filter through non

	equilibrium Green's function technique" [D.O. No. SR/FTP/PS-85/2009. **Funded by:** DST, Govt. of India *(Rs. 4.20:Lakhs).* **Principal Investigatior:** Dr. Sabyasachi Sen, Department of Physics & Department of Nanoscience & Nanotechnology. **Expected outcome:** Proposal of new generation of molecular electronic device. 2. **Title:** 'In silico design of novel molecular spintronic devices through nonequilibrium Green's function technique' **Funded by:** CSIR, Govt. of India **Principal Investigator:** Dr. Sabyasachi Sen, Department of Physics & Department of Nanoscience & Nanotechnology. **Expected outcome:** Proposal of new generation of molecular spintronic device 3. **Title:** Design a low cost microcontroller based wireless civil structure monitoring system. **Funded by:** Institution of Engineers (India) **Principal Investigator:** Mr. Anirban Patra, AP(ECE) **Expected outcome:** To monitor health concrete structure. 4. **Title:** Solar Photovolatic hybridization with usual grid to compensate peak load demand at JIS College of Engineering, Kalyani. **Expected outcome:** Improvement in present load system of the Institute. 5. **Title:** Produce the knowledge based database of electromyography (EMG) signal to enrich the interpretation technique for different human arm movement. PI: Dr. Biswarup Neogi. **Expected outcome:** Developed knowledge based base will be support for development of hand prosthetics and also thought control concept of robotics hand. 6. **Title:** Natural language processor incorporating auto-debugger under the framework of machine intelligence P.I. Dr. Somsubhra Gupta **Expected outcome:** The work presents a systems to compile and execute algorithm written using precise expression and can rectify error committed by the developer. The algorithm can be expressed with any linguistic synonym (vocabulary) or syntax (grammatical) variation. Since the system is syntax free nobody requires learning it manually. 7. **Title:** Design & Development of a Cardiac parameter Monitoring System using common mobile phone for affordable patient care; and Funded by AICTE PI: Dr. Meghmala Dutta; and Co PI: Dr. Somsubhra Gupta.
2. Number of Research papers published since July 2010 in Journals.	**National:** *145* **International:** *376*
3. Number of Consultancy Assignments taken by the faculty.	01

PROCUREMENT UNDER SOFT COMPONENT ACTIVITES:

- Procurement plan of 19 packages involving Rs. 94.62 lakhs was approved. Purchase orders (PO) were issued for these packages within 31st March 2014.
- The items in the procurement plan are mainly Software, -e-Books & e-Journals.
- Out of 19 packages, 2 (1 for e-Books & another for – Journal) have failed to deliver in due time, thereby POs for these 2 packages have been cancelled.
- Rests have been delivered; payment for 8pakages amounting to Rs.56.62 lakhs has already been released. Payment for 9 packages has been held up for want of fund.
- The list of the Softwares and e-journals for which POs have been issued is enclosed herewith for kind perusal.

Purchase order of the following packages has been made under TEQIP-II:

Sl. No.	Item Name	Package No.	Ref. No	User Department	Company Name.
1	Virtual Nano Lab with Quantum wise Tookkit for Nanotechnology Simulation:- (DFT Based)	141	TEQIPII/2013/WB2P01/Direct Contract/13	M.Tech Nano science & Technology	Integrated Micro system
2	Pro Simulator Boiler simulation Software	142	TEQIPII-2013/WB2P01/Shopping / 18	EIE	Indiasoft Technologies Pvt. Ltd.
3	ANSYS (HFSS) Software	144	TEQIPII/2013/WB2P01/Shopping 05	ECE	Entuple Technologies
4	SCADA and AD Drive Software	146	TEQIPII/2013/WB2P01/Shopping 20	EE	Integrated Automation & Service Solution
5	ETAP Software	147	TEQIPII/2013/WB2P01/Direct Contract/6	EE	ETAP Automation Pvt. Ltd.
6	CNC Train Offline Simulation Software	155	TEQIPII/2013/WB2P01/Direct Contract/16	ME	MTAB Engineers (P) Ltd.
7	MATLAB	167	TEQIPII/2013/WB2P01/Direct Contract/34	BME	Elmax Projects & Service
8	ANSYS (LF) Software	170	TEQIPII/2014/WB2P01/Shopping 8	EE	Entuple Technologies
9	Silvaco Software	182	TEQIPII/2013/WB2P01/Direct Contract/14	PHY	Micro Chitronix Systems
10	Wiley Books	183	TEQIPII/2013/WB2P01/Direct Contract/21	LIBRARY	Global Information Systems Technologies Pvt. Ltd.
11	Origin Lab Software	187	TEQIPII/2013/WB2P01/Direct Contract/27	ECE	Konark Solutions Bangalore Pvt. Ltd.
12	MATLAB	188	TEQIPII/2013/WB2P01/Direct Contract/33	ECE	Elmax Projects & Service
13	QEEE	191	TEQIPII/2014/WB2P01/Shopping/28		Compnet Technologies
14	PLC Software	194	TEQIPII/2013/WB2P01/Shopping/19	EE	Integrated Automation & Service Solution
15	LABVIEW Software	195	TEQIPII/2013/WB2P01/Shopping/38	EE	Trident Techlabs Pvt. Ltd.
16	STADD-Pro Software	196	TEQIPII/2013/WB2P01/Shopping 14	CE	Technology development Centre
17	IEEE e-journal	198	TEQIPII/2014/WB2P01/Direct Contract 40	LIBRARY	GIST

ACTIVITIES OF III CELL Summary (Changes/Progress observed between January 2014 to June 2014 written in italics)

(i) **Student's Training:**

No of students trained at the Industry : *1512*
(YOP 2012-*538*, YOP 2013-*612*, YOP 2014-*362* and continuing):

No. of students Trained for Employability Enhancement : *1495*
(YOP 2013-579, YOP 2014- *396*, YOP 2015 - *520*)

No. of Training Programme Organized : *19*

- Prolific Systems & Technologies PVT. Ltd. (Training on Industrial automation, PLC)
- CMC Ltd. (Advance JAVA, Dot NET, C Language, C++, Embedded Systems)
- SIMOCO Systems & Infrastructure Solutions Ltd. (ERP training)
- Texas Instruments (Analog design contest)
- Trident Techlabs Pvt. Ltd. (Training for CAD/CAM/CAE by CREO)
- Smartwiz Pvt. Ltd. (Placement preparatory training)
- *CoCubes Technologies Pvt. Ltd. (Placement preparatory training)*
- British Council (Employability Enhancement Training) : 04
- Aspiring Minds Pvt. Ltd. (Compute Adaptability Test)
- *Pre Placement Assessment (Placement preparatory training)*
- National Small Industries Corporation Ltd. (NSIC) (Industrial Training/Live Project) : 03
- Centre for Electronics Test Engineers (CETE), ERTL (E) (PLC/Micro Controller) : 02
- Volkswagen

(ii) **No. of Campus Interviews conducted**
(YOP *2012 - 110*, YOP 2013 - *104*, YOP 2014-*75 and continuing*): *289*

(iii) **No. of students participated in Recruitment drives**
(*YOP 2012-627*, YOP 2013 – *622*, YOP 2014 – *457* and continuing): *1706*

(iv) **No. of students place**
(*YOP 2012-443*, YOP 2013 – *457*, YOP 2014 – *321* and continuing): *1221*

(v) **No. of Industry Visit conducted.** ***16***

2012:

- Nicco Corporation Ltd.
- Infosys Technologies Ltd.
- Indian Oil Corporation Ltd.
- Coca Cola – Industrial Visit
- Damodar Valley Corporation – Mejia Thermal Power Station

2013:

- Nicco Corporation Ltd.
- CESC (I) Ltd.; Unit: Titagarh Power Generation Station
- Garden Reach Shipbuilders & Engineering Limited.;
- Garden Reach Shipbuilders & Engineering Limited.; Unit: FOJ
- Tata Metaliks Kubota Pipes Limited.
- Tata Metaliks Kubota Pipes Limited.; Unit: Kharagpur, West Bengal
- Bharat Sanchar Nigam Limited (BSNL), Netaji Subhas Chandra Bose Telecom Training Centre.

2014:

- *Nicco Corporation Ltd.*
- *CESC (I) Ltd.; Unit Titagarh Power Generation Station*
- *ESAB India Limited*
- *Alstom India Limited*

Vi) **No. of students participated in Industry Visits.** : *1262*

Vii) **No. of Seminar/Workshop Attended / Conducted:** : 14

- 61st Indian Foundry Congress – IIF of Mechanical Engineers.
- Seminar on Basic Manufacturing by Prof. of Jadavpur University.
- Certified Ethical Hacking workshop by Didactis IT Solutions.
- Non Destructive Testing Workshop by TMC Institute for Learning.
- Seminar on Challenges of Climate Change - Role of Renewable Energy.
- Workshop on Robotics.
- Cyber Security & Ethical Hacking Workshop.
- Workshop on "JISCE and SES, Germany collaboration with Kalyani Municipalty to Help SMEs with Technical and Managerial support".
- Microsoft Initiatives – Ideation Programme.

Viii) **No. of MOU with Industries** : *13*

- IBM – Centre of Excellence
- Infosys Technologies Limited – Campus Connect Programme
- Oracle University global partner
- Texus Instruments through Cane Software Inc on Teaching/Research/Lab facility in the area of Analog system design.
- S & H Manufacturing & Trading Pvt. Ltd. For Process automation.
- Yotto Pvt. Ltd. To promote and enhance academic activities
- M/S. Shankar Coils Pvt. Ltd. *Regarding Manufacturing of Electric motors and component.*
- BSNL for students training on emerging technology in the communication segment.
- ICICI Bank for E – Learning
- Microsoft, Ed – Vantage.
- Guru Nanak Institute of Dental Science & Research for BIO Medical Research work.
- IIT Bombay as remote centre.
- TCS ION regarding education, Manufacturing, Retail and professional service.

ix) **No. of Industries Accreditation** : 06

- TATA Consultancy Service Limited
- Cognizant Technology Solutions
- Wipro Ltd.
- Capgemini India Pvt. Ltd.
- Infosys Technologies Limited
- Videocon Industries Limited

x) **No. of MOU with Institutions** : *6*

- THE UNIVERSITY OF NEW SOUTH WALES, UNSW SYDNEY NSW 2052 AUSTRALIA.
- CSIR – Central Glass and Ceramic Research Institute.
- IIT – Kharagpur
- Boston University, Massachusetts.
- San Francisco State University
- Jadavpur University (School of Mobile Computing & Communication)

<u>On Going Activities</u> :

i) **Student's Training:**

No. of Students trained at the Industry. : *835*

(Under National)

17/6/2014

Dr. K. C. Patra

MENTOR

Mentor's Reports

Name of the Institution and location: **JIS College of Engineering, Kalyani, Nadia, West Bengal.**

Dates of the visit: From **7th to 10th January 2014 (Second Round).**

Name of the Mentor: **Dr. K. C. Patra.**

A. Interaction with UG students

Issues and suggestions that emerged.	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
Past Visit - (28th to 31st January 2013) **i)** No. of Volumes and No. of new titles of books to be procured in the library.	**Past Visit: (28th to 31st January 2013)** All the points **i)** to **vi)** was narrated & recommended to take proper steps in this regards. The management was requested to provide grant for purchase of new equipments since TEQUIP-II does not provide the same.	**(i)** Year / Volume of books / Title of books **2011-12** 3898 148 **2012-13** 11807 306 **2013-14** 7652 216
ii) New equipments and additional equipments to be procured as per the revised syllabus.		**ii)** 59 nos of equipments / sets of cost Rs. 65,60,298 have been procured and few more are in process to be purchased.
iii) Campus recruitment to be strengthen.		**iii) a)** The institute has signed MoU with 14 nos of industries and 5 nos of institutions in the country and abroad. **b)** The institute is accredited by 6nos of industries. **c)** 274 no of students were placed in 2013-14.
iv) Wi-Fi connection to be provided in the campus.		**iv)** Wi-Fi of 50MBPS capacity has been connected in the campus
v) Some faculty members need to be trained for developing their teaching ability.		**V)** Good no of faculties have undergone training.
vi) Vacant post of faculty in Civil & Mechanical Engg. to be filled up.		**Vi)** All the vacant posts were filled up and Zero vacancy is maintained in the institute II no of posts in ME and 7 no of posts in CE were filled up.
PRESENT VISIT: 7th January to 10th January 2014		
i) The PC through which catalog of books are accessed sometimes not working .	All these points were narrated and recommended to **(i)** have stand by P. C for library.	Assurance from the head and other senior functionaries of the institute got to look into these three recommendations.
ii) Wi-Fi connection to be extended to Hostels.	**ii)** Wi – Fi connection to be extended to hostels.	
iii) Hostels maintenance to be improved.	**iii)** Faculty members may be involved in hostel management.	

B. Interaction with PG Students.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
Past Visit: (28th to 31st January 2013)	**Past Visit: (28th to 31st January 2013)**	
i) No. of volume and No. of New titles of some books to be procured for Book Bank of the Central Library.	It has been appraised on the issues raised by the P.G. students.	**i)** No. of volumes and no. of new titles of book have been procured to the book bank.

ii) Campus selection for P.G. students to be provided.		ii) Campus recruitment for PG Students has been considered.
iii) Preparatory leave of two weeks to be allowed before semester examinations.		iii) Two Weeks preparation leave is allowed for semester examinations.
PRESENT VISIT: 7th to 10th January 2014		
i) More no of computers with updated configurations to be procured for diff. deptts. particularly for CSE, IT and Biomedical Engg.	i) All these issued were discussed and recommended to look into these issues.	These issues shall be looked into.
ii) Laboratory furniture to be maintained.		
iii) More lab space for CSE, IT and AEI deptt. to be provided.		

C.(I) Interaction with the faculties.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
<u>Past Visit:- 28th to 31st Jan 2013</u> (i) Purchase of new equipments needed for R&D work is essential.	<u>Past Visit:- 28th to 31st Jan 2013</u> These issues were discussed and recommended to take proper steps in this regard.	<u>Past Visit:- 28th to 31st Jan 2013</u> (i) 7 nos. of R&D and RPS projects have been under taken from different agencies like DST CSIR and AICTE etc. where required equipment have been purchased.
ii) Vacancy in CE and ME		ii) The institute is now maintaining zero vacancy status.
PRESENT VISIT:- 7th to 10th January 2014		
i) Staff should be informed as and when the books are procured in the library on their requisition.	i) All these items (i) to (iv) were discussed and take up issues on (i) and (ii) by the institute and items (iii) & (iv) are to be taken up with the WBUT	i) Items (i) and (ii) shall be resolved by the institute items (iii) and (iv) are to be taken up with WBUT
ii) More no of E-Journals to be procured.		
iii) JIS should considered as place of research and the faculties scholars registered for Ph.D are to be permitted to take their course work in JIS		
iv) Regular advertisement for Ph.D registration to be floated by WBUT.		

C.(II) Interaction with Alumni.

PRESENT VISIT 7th 10th January 2014		
Issues and suggestions that emerged	**Recommendation made by mentor to the Head of Institution**	**Progress in implementation of recommendations made during the previous visit**

i) More lab space and more no of computer terminals with updated configuration to be provided to CSE & IT deptt.	All these items were discussed and recommended to take suitable steps in this regard. It is also recommended to go solar system for power back up.	The proper steps shall be taken up.
ii) Power Backup for comp. lab to be provided.		
iii) More no of P.Cs to be provided to Electrical Circuit and Control lab.		
iv) QUALNET software with multi-user facilities (Research Version) to be provided to the ECE deptt.		
v) Projectors to be provided in class rooms and laboratories.		
vi) Camera may be fitted in classrooms.		

D. Interaction with the Staff.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
PAST VISIT: 28th to 31st January 2013		
Many staff members are interested to take training in NITTTR, Kolkata.	Technical staffs are to be sent for training.	1. 29 nos of faculties have taken training on routine maintenance of both existing and new laboratory equipments. 2. 27 nos of Administrative and support staff have taken training on use of Modern office equipments, software office automation, maintenance of records, procedures etc.
PRESENT VISIT: 7th to 10th January 2014		
i) Graphics Lab. in ME deptt. to be provided with a projector.	Recommended to take up these steps in this regard.	Necessary steps shall be taken up.
ii) Training on finance, Materials and Library to be provided.		

E. Interaction with Senior Functions of the Institution.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
PAST VISIT: 28th to 31st January 2014		
i) Accreditation by National Assessment and Accreditation Council (NAAC – UGC).	Status of the Institute in Autonomy, Accreditation of different programmes are summarized and documented.	i) Accreditation by NAAC: For 5years i.e. 15.06.2009 to 15.06.2014 accreditated on a four point scale at B-Grade.

ii) Accreditation by National Board of Accreditation (NBA – AICTE). iii) **Autonomy Granted by UGC** & conferred by WBUT of UG & PG programmes.		**ii) Accreditation by NBA*:** **a) B.Tech:** **(1)** ECE-2years from 04.01.13 to 04.01.15 **(2)** CSE–2years from 04.01.13 to 04.01.15 **(3)** EE- 2years from 04.01.13 to 04.01.15 **(4)** BIO Medical Engg. – 3years from 21.06.10 to 21.06.13 **(5) EI: Applied for renewal** **(6) IT: Applied for renewal** **b) P.G. (M.Tech):** **(1)** EE-ED & PS – 3years from 04.01.13 to 04.01.16 **(2)** MC & NT – 3years from 04.02.13 to 04.01.16 **iii)** Autonomy: Granted by UGC from 2011 – 12 to 2016-17 (6years). Conferred by WBUT from 02.08.12 to 02.08.17 (5years) **a) UG:** (1) Biomedical Engg. 60 students (Intake) (2) Civil - 60 (3) CSE – 120 (4) EE – 90 (5) EC – 120 (6) EI – 90 (7) IT – 90 (8) ME – 120 **b)** PG (1) ME – 18 (2)EE - Electrical Drives & Power Systems – 18 **(3)** CSE – 18 **(4)** Biomedical Engg. – 18 **(5)** AEI – 18 **(6)** Mobile Communication & Network Technology – 18 **(7)** Nano Science & Technology – 18 **(8)** Software Engg. - 18

F. Interaction with chair person and / or member of BOG.

Suggestions / views/decisions given	**Progress in implementation of suggestions/views/decisions. If implementation delayed or progress in implementation unsatisfactory; given the reasons for the same.**
PAST VISIT: 28th to 31st January 2014	
i) To provide adequate grant to procure equipments for new and existing PG Labs and for R&D works since TEQIP II does not have any provision under this head.	i) The Institute has been funded by the Group for modernization/Maintenance of its Laboratories from Time – to Time (E.g. The MODROB MI lab was established during 2008-09. The cost of renovation of both the High end Server (Dell Power edge R900) and printer (HP dtn 5200 Network Laser). • The new set up has been made Dept. of ME – A number of new laboratories and workshop has come. Dept. of CSE - IT project and Hardware Training Lab. • New LCD projectors as Audio-Visual Teaching aids has been provided to EE,

	ECE, CSE, IT department. So far any kind of procurement has been funded by the Trust except for some MODROB labs and RPS projects granted by funding agencies. (AICTE/DST etc.).
ii) Wi-Fi connection to be provided in all places of the college campus including hostels.	**ii)** Already set up in the Administrative Zone, Laboratories. Technological Disciplines, Libraries and the Departments during June-July, 2013. Extension has been made to the Hostels.
iii) To fill up all existing faculty vacancies of the college particularly in ME and CE departments.	**iii)** Process of Recruitment is continuous and based on suggestion of the Mentor announcement has been made for the aforementioned as well as other department for filling up few vacancy positions.
iv) To ensure students participation in all committees except finance	**iv)** Students are incorporated in most of the statutory committee for curricular, Co-curricular and Extra curricular viz. Library Committee, Sports Committee.
v) To form own Committees like BOG, BOS, Finance.	**v)** Under Autonomous Framework every technological disciplines has formed its own Board of Studies which are all functioning for Curriculum Revision and Restructure and Syllabus construction. The BOS have been formed separately for the UG and PG courses in the Departments. • **Board of Governors has been functioning well with the composition of members as per the direction of UGC given in the book let.** • All statutory and Nodal Committees provisioned under TEQIP has been formed and functioning viz. Academic Activities Committee, Training and Research Committee, Industry-Institute Partnership Committee, Procurement Committee, EAP committee, Monitoring and Evaluation Committee including Finance Committee.
vi) To sign MOU with different committees for R&D activities	**vi)** Initiatives has been taken to sign MOU for joint/collaborative alliance in R&D activities. The discussion has been going on for R&D works. This apart Institution has MOU with number of Industry Housed (ranging from Japanese Language ES to Microsoft MSDN, IBM, WIPRO, TCS etc.).
vii) For Consultancy work in CE Department.	**vii)** The follow up measures has been taken. Two experts visited the department as consultant. Mr. Peter Crotz in Township planning visited the department during International Conference IC3A-2013 • Since the Department is comparatively newer one and since passed out batch is yet to come, the Research and Consultancy activities will speed up gradually.
viii) To conduct Staff Development Programme (In house) in every department.	**viii)** Following the advice, in house Staff Development Programmes are organized. Besides staff development programme are encouraged externally during Last week of June-first week of July in British Council.
ix) To arrange for	**ix)** The following measures has been taken:

management people, management training & software training.	• Towards Institution management capacity enhancement Principal and HOD, ME participated in the IIM Lucknow organized Training Programme at Noida extension. PNO (Finance) is all set to participate. The other HODs and administrative people will join it soon. The schedule has been made and communicated to SPFU. • Good Goverance workshop has been organized under TEQIP for idea sharing on role of HODs. The participants were from various Institutions under JIS Group. • TEQIP Nodal officers are going through PMSS, FMSS and MIS web based Software Training which they have been sharing with their respective Nodal Committee members.
x) To revise curricular in every three years.	**x)** Since obtaining autonomy and maturing through its 2nd session of autonomous structure the newly framed curriculums are in practice.
xi) One Teacher / Mentor / Proctor may be allotted with minimum 20 number of students.	**xi)** Student Mentorship programme already in Practice.
xii) The syllabus has to be revised as per Washington accord and somewhat details by the Dayaratnam Committee. Provision for Basic Science, Humanities, Management, Core Subjects, Professional electives and free electives subjects to be given with about 200±10 credit points.	**xii)** All the BOS of Technological disciplines have been restructuring the curriculum according to the AICTE guideline in the line of Washington Accord with stipulated hour allotted to Basic Science, engineering Science, Humanities, Management, Professional Core, Professional Electives and free electives.
xiii) To undertake project for UG & PG which are related to Industries or of Industrial applications.	**xiii)** Initiative has been taken in the current session so as to encourage it further in the line of converging projects to products and commercialization of products.
xiv) To encourage research which have industrial applications.	**xiv)** Ph.D. is yet to be granted by the affiliating University. Faculty research and Post Graduate dissertation are encouraged to emphasize and incorporate more and more industrial applications.
xv) Regulation for Ph.D. has been prepared but Ph.D. programme are yet to be started with the approval of regulation by WBUT	**xv)** Depend on Regulatory Bodies and affiliating Universities.

PRESENT VISIT: 7th to 10th January 2014	
i) Adaption of Good Governance ii) WBUT should allow JIS college of Engineering as the place of Research both for Engg. & Basic science. iii) Inclusion of student members in BOS.	**Proceedings of the Meeting Between Mentor, TEQIP, Prof. K.C. Patra & the Board of Governors of JIS College of Engineering held on 07.01.2014 at 3:00PM at Meeting Room of the College.** **Members Present:** 1. Prof. K. C. Patra - Mentor, TEQIP - II 2. Prof. S.M. Chatterjee - Chairman, BOG 3. Dr. Asit Guha - Director, JIS Group, Member-BOG 4. Mr. U S Mukherjee - Dy. Director, JIS Group, Member-BOG 5. Dr. S. K. Mitra - Prof. Dept. of EE, Member - BOG 6. Dr. S. S. Gupta - Asst. Prof. Dept. of CSE, Member-BOG 7. Ms. S. S. Ghosh - GM-Corporate Relation, Member-BOG. 8. MR. R. P. Duari - Registrar, JISCE 9. Dr. U. Bandyopadhyay - Principal, JISCE –**Member -Secretary** • The Chairman welcome all the members and announced that quorum is formed; hence called the meeting in order. • Prof. K. C. Patra, Mentor – TEQIP enquired about the policy decision which have been taken by Governing Body. • The Mentor requested to send him the self review report of governance. • The Mentor advised to follow the Expert Advisor Group guidelines. • The Mentor enquired about the procurement of new equipments. The Principal informed that in NST Lab. 2 equipment procured, one from Japan. ME department procured some equipments and the process is going on. He also informed that books, e-books, e-journals and some software are also under procurement under TEQIP under new guidelines. Chairman suggested to procure more equipments out of college fund. • The Mentor enquired about the wi-fi connection. It is informed that the wi-fi is connected in the campus. • The Mentor enquired about the vacancy of faculty specially in the department of ME an CE. It is reported that faculty recruited in both departments. • The Mentor advised to include the students and experts from industry, as the member of BOS. He also suggested to place an agenda before BOG to include the student as the member of BOS. • The Mentor enquired whether the Ph.D work regulation problem is overcome or not. It is reported that the problem is partially overcome. • The Mentor suggested to send a request letter to Vice Chancellor, WBUT to regularize the Ph.D work in the college campus including conducting course work at JISCE, Kalyani. • Mentor wanted to know about the update report regarding MOU with industries. It is reported that 7 MOU newly signed with different Industries.

G. Interaction with Head of Institutions and the Project Coordinator:

All the points stated above from A to F have been discussed and suggested to take necessary steps for expediting the project performance. Above all it has been appraised about Good Governance programme and a copy of Guidelines of Good Governance has been supplied.

Brief notes of the Mentor
(Second Round Visit from 7th to 10th January 2014)

Meeting with the students (UG&PG), Alumni, Nodal Officers, Project Coordinators, Registrar, Principal, Director, Board of Governors, Chairman BOG, **(Observations, Suggestions & Recommendations**:)

INSTITUTIONAL REFORMS:

a) **Curricular reforms:** The syllabus for UG and PG has been revised under Autonomous system through different Board of Studies with participation of Experts from renowned Academic Institutions, Universities and Industries Approximately 200 Credit Point System has been adopted with no. of elective papers.

b) **Improved students performance evaluation:** Continuous performance Evaluation has been implemented in Even Semester 2013 and the Evaluation Diary for odd semester 2013 has been circulated.

c) **Performance appraisal of faculty by students feedback:** Faculties are being counseled after students feedback.

d) **Generation, retention and utilization of revenue generated:** The BOG has permitted to share IRG between Faculty & Institute in the proportion of 60:40, for the revenue generated in R&D or in RPS projects.

e) **Filling up of existing faculty and staff vacancies:** Presently there is Zero vacancy in the Institute.

f) **Delegation of decision making powers to senior functionaries with accountability:** Decision making power has been delegated to senior functionaries by BOG.

EQUITY ASSURANCE:

1) **Establishment of Finishing School:** Finishing school aimed towards soft Skill Development, Analytical Skill Development and Technical Skill Development.

2) **Identification of academically week students through Diagnostic Checks:** Male, Female, SC/ST, Physically Handicapped etc. seven numbers of Diagnostic Test have been conducted.

3) **Remedial Teaching:** No. of students covered, man hours involved, no. of classes conducted.

   a. **For Technical Skill Development:**

   Phase I: No. of students involved – 80, no. of persons involved -03, no. of hours involved/day 06, no. of days involved – 08.

   Phase II: No of students involved-50, no. of persons involved – 04, no. of hours involved/day-06 no. of days involved- 08.

   Phase III: No of students involved -85, no. of persons involved-04, no. of hours involved/day -06, no. of days involved-07.

   Induction Programme for 1st year students: No. of students involved -250, no. of persons involved-16, no of hrs involved/day -06, no of days involved 08.

- One National Seminar was organized by EE Dept. on "Application on Control System in Modern Technology" on 1st October 2013: No. of Students involved 53, No. of persons involved – 03, No. of hours involved/day – 06, No. of days involved - 01
- **Finishing School for 4th yr students (Ongoing 02/01/14 - 12/01/14):**
  No. of students involved – 55, No. of persons involved – 01, No. of hrs involved/day – 06, No. of days involved – 10.

   b. **For Soft Skill Development:**

   Phase I: No. of Students involved – 30, no. of persons involved-03, no. of hrs involved/day-02, no of days involved-05.

   Phase II: No. of students involved -150, no. of persons involved-03, no. of hrs involved/day -03, no. of days involved-04.

   Phase III: No. of students involved -250, no. of persons involved-04, no. of hors involved/day-01, no. of days involved -250,

4) **Improvement of Pass Rate:**
   a) In 2011-12 = 76.24% (1st yr to 2nd yr)
   b) In 2012-13 = 93.49% (1st yr to 2nd yr)

5) **No. of specialized soft skills and professional skill development training conducted during semester break and vacations.**
   a) Technical skill development training has been organized.
   b) Soft Skill & Communication Skill Development training has been organized.

6) **No. of campus Interviews :** 15nos of Interviews were conducted and placement 13nos. in 2013, 2 nos. interviews conducted in 2014 - placement 2nos.

FACULTY AND STAFF DEVELOPMENT PROGRAMME:

a) **Faculty members training in subject domain:** 82 nos of faculties have participated either in Workshop/Training programmes.

b) **Upgrading qualification of faculty members:** 26nos of faculties got benefits in support for paper publication/Ph.D registration/ Thesis submission.

c) **Faculty training in management capacity development:** HOD(ME), the Principal and the Nodal Officer (Finance) have attended the Institutional Management capacity Enhancement program at IIM Lucknow (Noida Campus).

d) **Training of Nodal officers at SPFU:** Nodal officers Academics, Finance and Procurement received regular training assigned by SPFU.

e) **Training of technical staff:** 29 nos. of staff have taken part in such programmes.

f) **Training of administrative / support staff:** 27 nos. of staffs have undergone training in use of modern office equipment, software office automation, maintenance of records and procedures etc.

g) **Organizations of Seminar, Conference, Workshop and Symposium:** 25 nos. of faculties have taken part in such programmes.

h) **No. of research projects undertaken by the faculty individually / jointly / collaboratively expected outcome of each project:** 07nos (one project sponsored by DST, one by CSIR and one by Institute of Engineers and 04 by AICTE RPS projects).

i) **Pedagogical training of faculty:** Training organization is yet to be finalized.

j) **Number of research papers published since 2010:** National 145 (Journal +Conference Proceedings) & International 374 (Journal + Conference Proceedings)

SOFT COMPONENT ACTIVITIES

(a) Teaching and Research Assistance ship:

1. **(i) No of existing M.Tech courses: No. of existing M.Tech courses: 04**

   (ii) Sanctioned intake for each, year of introduction of courses: EDPS (EE) – 18(2006)

   MCNT (ECE) – 18 (2006)

   CSE – 18 (2008)

   IT – SE – 18(2008)

2. **(i) No. of New M.Tech courses introduced: 04**

   (ii) Sanctioned intake of each, year of introduction of course: EIE – 18(2011)

   BMI – 18 (2011)

   NST – 18(2012)

   ME – 18(2012)

3. **No of non – Gate students admitted in the academic session 2012-13 in each course:**

   EE-17, ECE – 06, EI - II, CSE - 16, BMI-02, NST - 02, IT-SE – 05, ME – 01.

4. **No. of non-Gate students received Teaching Assistance ship and total amount:**

   73 (44 1st yr promoted to 2nd yr and 29 2nd yr of session 2012-13 passed out in June, process of including new 1st yr students initiated. Amount Rs. 65.86 lakhs.

b. Research and Development:

1. No of research projects under taken by the faculty individually, jointly and collaboratively. Expected outcome of each project.	07 (One project sponsored by DST, one by CSIR and one by Institute of Engineering and 04 more by AICTE RPS projects) **1. Title:** In Silico design of novel molecular rectifier and spin filter through nonequilibrium Green's function technique" [D.O. No. SR/FTP/PS-85/2009 **Funded by:** DST, Govt. of India **Principal Investigatior:** Dr. Sabyasachi Sen, Department of Physics & Department of Nanoscience & Nanotechnology. **Expected outcome:** Proposal of new generation of molecular electronic device. **2. Title:** 'In silico design of novel molecular spintronic devices through nonequilibrium Green's function technique' **Funded by:** CSIR, Govt. of India **Principal Investigator:** Dr. Sabyasachi Sen, Department of Physics & Department of Nanoscience & Nanotechnology. **Expected outcome:** Proposal of new generation of molecular spintronic device **3. Title:** Design a low cost microcontroller based wireless civil structure monitoring system. **Funded by:** Institution of Engineers (India) **Principal Investigator:** Mr. Anirban Patra, AP(ECE) **Expected outcome:** To monitor health concrete structure. **4. Title:** Solar Photovolatic hybridization with usual grid to compensate peak load demand at JIS College of Engineering, Kalyani. **Expected outcome:** Improvement in present load system of the Institute. **5. Title:** Produce the knowledge based database of electromyography (EMG) signal to enrich the interpretation technique for different human arm movement. PI: Dr. Biswarup Neogi. **Expected outcome:** Developed knowledge based base will be support for development of hand prosthetics and also thought control concept of robotics hand. **6. Title:** Natural language processor incorporating auto-debugger under the framework of machine intelligence P.I. Dr. Somsubhra Gupta **Expected outcome:** The work presents a systems to compile and execute algorithm written using precise expression and can rectify error committed by the developer. The algorithm can be expressed with any linguistic synonym (vocabulary) or syntax (grammatical) variation. Since the system is syntax free nobody requires learning it manually. **7. Title:** Design & Development of a Cardiac parameter Monitoring System using common mobile phone for affordable patient care; and Funded by AICTE PI: Dr. Meghmala Dutta; and Co PI: Dr. Somsubhra Gupta.
2. Number of Research papers published since July 2010 in Journals.	**National:** 65 **International:** 240
3. Numberof Consultancy Assignments taken by the faculty.	01

ACTIVITIES OF III CELL

(i) **Student's Training:**

No of students trained at the Industry : 1340
(YOP 2012-450, YOP 2013-600, YOP 2014-290):

No. of students Trained for Employability Enhancement : 1137
(YOP 2013-579, YOP 2014- 405, YOP 2015 - 153)

No. of Training Programme Organized : 12

Prolific Systems & Technologies PVT. Ltd. (Training on Industrial automation, PLC)

- CMC Ltd. (Advance JAVA, Dot NET, C Language, C++, Embedded Systems)
- SIMOCO Systems & Infrastructure Solutions Ltd. (ERP training)
- Texas Instruments (Analog design contest)
- Trident Techlabs Pvt. Ltd. (Training for CAD/CAM/CAE by CREO)
- Smartwiz Pvt. Ltd. (Placement preparatory training)
- Aspiring Minds Pvt. Ltd. (Compute Adaptability Test)
- British Council (Employability Enhancement Training)
- National Small Industries Corporation Ltd. (NSIC) (Industrial Training/Live Project)
- Centre for Electronics Test Engineers (CETE), ERTL (E) (PLC/Micro Controller)

(ii) **No. of Campus Interviews conducted**
(YOP 2013 - 93, YOP 2014 - 28) : 121

(iii) **No. of students participated in Recruitment drives**
(YOP 2013 – 579, YOP 2014 - 405) : 984

(iv) **No. of students place**
(YOP 2013 – 232, YOP 2014 – 42 AND continuing) : 274

(v) **No. of Industry Visit conducted.**

2012:

- Nicco Corporation Ltd.
- Infosys Technologies Ltd.
- Indian Oil Corporation Ltd.
- Coca Cola – Industrial Visit
- Damodar Valley Corporation – Mejia Thermal Power Station

2013

- Nicco Corporation Ltd.
- CESC (I) Ltd.; Unit: Titagarh Power Generation Station
- Garden Reach Shipbuilders & Engineering Limited.;
- Garden Reach Shipbuilders & Engineering Limited.; Unit: FOJ
- Tata Metaliks Kubota Pipes Limited.
- Tata Metaliks Kubota Pipes Limited.; Unit: Kharagpur, West Bengal
- Bharat Sanchar Nigam Limited (BSNL), Netaji Subhas Chandra Bose Telecom Training Centre.

Vi) **No. of students participated in Industry Visits.** : 800

Vii) **No. of Seminar/Workshop Attended / Conducted:** : 09

- 61st Indian Foundry Congress – IIF of Mechanical Engineers.
- Seminar on Basic Manufacturing by Prof. of Jadavpur University.
- Certified Ethical Hacking workshop by Didactis IT Solutions.
- Non Destructive Testing Workshop by TMC Institute for Learning.
- Seminar on Challenges of Climate Change - Role of Renewable Energy.

- Workshop on Robotics.
- Cyber Security & Ethical Hacking Workshop.
- Workshop on "JISCE and SES, Germany collaboration with Kalyani Municipalty to Help SMEs with Technical and Managerial support".
- Microsoft Initiatives – Ideation Programme.

Viii) No. of MOU with Industries : 14

- IBM – Centre of Excellence
- Infosys Technologies Limited – Campus Connect Programme
- Oracle University global partner
- Texus Instruments through Cane Software Inc on Teaching/Research/Lab facility in the area of Analog system design.
- S & H Manufacturing & Trading Pvt. Ltd. For Process automation.
- Jadavpur University (School of Mobile Computing & Communication)
- Yotto Pvt. Ltd. To promote and enhance academic activities
- M/S. Shankar Coils Pvt. Ltd. For process automation.
- BSNL for students training on emerging technology in the communication segment.
- ICICI Bank for E – Learning
- Microsoft, Ed – Vantage.
- Guru Nanak Institute of Dental Science & Research for BIO Medical Research work.
- IIT Bombay as remote centre.
- TCS ION regarding education, Manufacturing, Retail and professional service.

ix) No. of Industries Accreditation : 06

- TATA Consultancy Service Limited
- Cognizant Technology Solutions
- Wipro Ltd.
- Capgemini India Pvt. Ltd.
- Infosys Technologies Limited
- Videocon Industries Limited

x) No. of MOU with Institutions : 5

- THE UNIVERSITY OF NEW SOUTH WALES, UNSW SYDNEY NSW 2052 AUSTRALIA.
- CSIR – Central Glass and Ceramic Research Institute.
- IIT – Kharagpur
- Boston University, Massachusetts.
- San Francisco State University

<u>On Going Activities</u> :

i) Student's Training:

No. of Students trained at the Industry. : 235
(YOP 2014 – 205, YOP 2015 - 30)

- National Small Industries Corporation Ltd. (NSIC)
- Volkswagen (Automation / Automobile)
- Centre for Electronics Test Engineers (CETE), ERTL(E)

No. of students Trained for Employability Enhancement : 45
(YOP 2014), British Council

18/1/2019

Dr. K. C. Patra
MENTOR

Mentor's Reports

Name of the Institution and location: **JIS College of Engineering, Kalyani, Nadia, West Bengal.**

Dates of the visit: From **28th Jan'13 to 31st Jan'13.**

Name of the Mentor: **Dr. K. C. Patra.**

A. Interaction with UG students

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
i) No. of Volumes and No. of new titles of some books to be procured in the library.	All the points **i)** to **vi)** was narrated & recommended to take proper steps at the earliest.	i. It has been suggested and recommended to the Management to increage the books **grants in the budget** and **recommendation of students** to be considered for procurements of the books.
ii) New equipments and additional equipments to be procured as per the revised syllabus.		ii. The management has been requested to **provid grant** for purchase of new equipments and additional equipment since TEQUIP-II does not have any provision under this head.
iii) Campus recruitment to be strengthen.		iii. 123 nos. of companies are being contacted to visit the institute for campus selection. The institute is accreditated by 6 nos. of industries. Steps are being taken to accreditate with more no. of Industries. The institute has signed MOU with 6nos. of industries. In 2011 batch – 499/788 students were placed. In 2012 batch – 477/773 students were placed. In 2013 batch – already 74 students were placed and the processes is continuing & it is expected more than 500 students may be placed through campus selection.
iv) Wi-Fi connection to be provided in the campus.		iv. Wi-Fi connection shall be provided very shortly.
v) Some faculty members need to be trained for developing their teaching ability.		v. Staff development programme shall be conducted regularly.
vi) Vacant post of faculty in Civil & Mechanical Engg. to be filled up.		vi. The management has been apprised about the vacant teaching post which will be filled up shortly

B. Interaction with PG Students.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
i) No. of volume and No. of New titles of some books to be procured for Book Bank of the Central Library.	It has been appraised on the issues raised by the P.G. students.	P. G. programme in 8 nos. of subjects of specialization are running smoothly.
ii) Campus selection for P.G. students to be provided.		
iii) Preparatory leave of two weeks to be allowed before semester examinations.		

C. Interaction with the faculty.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
i) Purchase of new equipments needed for R&D work is essential.	i) It was requested to grant adequate fund to procure the equipments needed for R & D work.	i) The management has agreed to procure the instruments for new P.G. labs & for R&D woks from the institute funds.
ii) There are some vacancy in the teaching posts of the Mechanical Engg. & Civil Engg. deptts. which are to be filled up.	ii) It was requested to fill up all the vacant teaching posts.	ii) The management has agreed to recruit some more faculty in Civil Engg. & 07more faculties in Mechanical Detptt.

D. Interaction with the staff.

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
Many staff members are interested to take training in NITTTR, Calcutta.	Technical Staffs are to be sent for training in phases.	Technical Staffs shall be sent for training in phases.

E. Interaction with senior functionaries of the Institution

Issues and suggestions that emerged	Recommendation made by mentor to the Head of Institution	Progress in implementation of recommendations made during the previous visit
i) Accreditation by National Assessment and Accreditation council (NAAC – UGC). ii) Accreditation by National Board of Accreditation (NBA – AICTE). iii) **Autonomy Granted by UGC** & conferred by WBUT of UG & PG programme.	Status of the Institute in Autonomy, Accreditation of different programmes are summarized and documented.	**i.** Accreditation by NAAC: For 5years i.e.-15.06.2009 to 15.06.2014 accreditated on a four point scale at B-Grade. **ii.** Accreditation by NBA:* **(a)** B.Tech: (1) ECE – 2years from 04.01.13 to 04.01.15. (2) CSE – 2years from 04.01.13 to 04.01.15. (3) EE – 2years from 04.01.13 to 04.01.15. (4) Bio Medical Engg. – 3years form 21.06.10 to 21.06.13. (5) EI – 3years from 10.02.2009 to 10.02.12. (6) IT – 3years from 10.02.2009 to 10.02.12. **(b)** P.G. (M.Tech): (i) EE – ED & PS – 3years from 04.01.13 to 04.01.16. (ii) MC & NT – 3years from 04.02.13 to 04.01.16. **iii.** Autonomy: Granted by UGC from 2011- 12 to 2016 – 17 (6years). Confered by WBUT from 02.08.12 to 02.08.17 (5years) **a)** UG: (1) Biomedical Engg. 60 students (intake) (2) Civil Engg. – 60 (3) CSE – 120 (4) EE – 90 (5) EC – 120 (6) EI – 90 (7) IT – 90 (8) ME – 120 **b)** PG: (1) ME – 18 (2) EE – Electrical Drives & Power Systems–18. (3) CSE – 18 (4) Biomedical Engg. – 18 (5) AEI – 18. (6) Mobile Communication & Network Technology–18. (7) Nano Science & Technology – 18. (8) Software Engg. – 18.

F. Interaction with Chairperson and/or member of BOG

Suggestions/views/decisions given	Progress in implementation of suggestions/views/decisions .If implementation delayed or progress in implementation unsatisfactory; give the reasons for the same.
i) Procurement of equipments necessary for R&D work. ii) Filling up of vacant posts. iii) Wi-Fi connection	i) Mentor advised for student participation in all committees except finance. ii) Advised to form own committees like BOS, BOR, Finance etc under Autonomy. iii) Director informed we have already formed all the committees without student's participation. iv) Mentor explained how to improve the teaching learning process. v) He advised and requested the Managing Director to procure the instruments for new PG labs. and Research work out of College fund. vi) He advised for addition of some new books in library. vii) He advised to sign MOU with different companies for R&D activities. viii) He advised for consultancy work in Civil Engineering Dept. and also advised to recruit more faculties. ix) He advised to recruit 7more faculty in Mechanical Engg. Dept. immediately. x) He advised to conduct Staff Development Programme in every department. For management people management training, software training are necessary. xi) Advised to liaison with a local industry for training of students, staffs and consultancy. xii) GM-CR informed that we have already approached approx 17 nos. companies and negotiation is going on. xiii) Regarding curriculum the mentor advised to revise the curricula in every 3years. xiv) He advised for Wi-Fi connection in the college campus and should be extended to the Hostels.

G. Interaction with Head of Institutions and the Project Coordinator:

All the points stated above from A to F have been discussed and suggested to take necessary steps for expediting the project performance. Above all it has been appraised about Good Governance programme and a copy of Guidelines of Good Governance has been supplied.

Brief notes of the Mentor
(On first visit from 28th to 31st December 2012)

Meeting with the students (UG&PG), Alumni, Nodal Officers, Project Co-ordinators, Registrar, Principal, Director, Board of Governors, Managing Director (Managing Trustee JIS Group), **Observations, Suggestions & Recommendations**:

Institutional Reform:

i) Several initiatives were taken for fulfillment of the Equity Action Plan (EAP) under TEQIP II: Subcomponent 1.2 as per guidelines laid down by SPMU/SPFU for the period 01.04.12 to 30.09.12 and 01.10.12 to 31.03.13 for the betterment of students and the college.

ii) As a part of the initiative towards development of academically weaker students the 2011 – 2012 B.Tech entrants were screened based on their 1st semester results and 102 nos. of students were identified who had performed poorly in the semester examinations.

iii) Special tutorial and remedial classes were arranged for the above mentioned students for enhancement of knowledge and better performance.

iv) For the year 2012 entrants though screening and corrective measures have been planned in several steps to ensure complete identification and monitoring of students academically weak in certain subjects.

Steps for improvement of academic performance:

a) Counseling just after admission and prior to commencement of classes for 1st year 2012 B.Tech entrants.
b) Screening based on counseling and Higher Secondary marks in concerned subjects.
c) Orientation program to be carried out by the respective departments as identified by the above mentioned counseling process.
d) Remedial class every fortnight and continuous monitoring by concerned Departmental HOD and faculties assigned for the classes (provision for remedial class to be reflected in scheduled routines for 1st year classes).

A special training program for a period of 15days has been arranged for improvement of technical skills and theoretical knowledge commencing from Feb'12 (as TEQIP fund was actually available from Nov'12 and Semester examination was scheduled in December – January 2012) involving External experts and Internal Faculty Experts.

Steps for Evaluation:

a) Monthly surprise Test.
b) Scheduled Internal Test as per academic calendar.
c) Semester Examination.

The employability of these students shall be regularly monitored. **Students feedback** to be effectively analyzed and implemented.

Performance appraisal to be duly considered.

v) Regarding ensuring a gender friendly campus specially for women and differently abled several steps and initiatives have been taken and future plan submitted.

Some steps are cited as follows:

a) Awareness programme 'Save Girl Child' on 04.05.12, participant students of JISCE – An initiative of Women Cell JISCE.
b) Invited Talk on 04.05.12 by external expert on women rights and Awareness – An initiative of Women Cell JISCE.
c) Procurement of Room for Women Cell JISCE, Renovation of college infrastructure (ramp, elevator for the physically challenged) including Ladies hostel.

Equity Assurance:

In order to monitor all activities of the students and to redress their grievances in time. Mentoring/Proctorial systems are to be adopted. One teacher Mentor/Proctor may be allotted with minimum 20 no. of students.

Monitoring and Evaluation:

A sub committee comprising some members has been constituted for regular monitoring and evaluation of all the components of the project. Proper steps are taken to update the data through MIS and PMSS.

Faculty and Staff Development:

Several teachers have participated in the FDP, Workshops in house and in other institutions for enhancement of their knowledge and teaching skills. Plan for FDP, TNA and SDP prepared for the upcoming months (Report submitted).

Academics:

i) The Autonomy was objective and UGC granted autonomy to JIS college of Engineering in 2011 and WBUT conferred in 2012,

ii) At the beginning of the project the PG intake was 72 which was literally doubled to 144.

iii) The improvement on Academic activities in Research also made with respect to research publication. In international publication more than the target no. was reached, 63 nos. of research papers were published in International Journals & 15 nos. of papers were published in National Journals. Besides 1book was published in between 2011 – 12.

iv) The vacant teaching posts are filled up time to time.

v)* The Accreditation programmes are regularly renewed to the accredited programmes and fresh accreditation was done successfully especially to the PG programmes.

Soft component activities like:

i) **Restructuring –** Curriculum syllabus – BOS are always functioning.

ii) **Reform in Examination System –** Continuous performance evaluation has been effectively practised.

iii) **PG assistance ship has been extended to the students.**

iv) Faculty & Staff Development (FSD) grant reimbursement has started. The Institute received first installment of fund almost in the midway of the project phase, the Institute could host one **International Conference** within 2 months of receiving funds. In this TEQIP sponsored and IEEE, Kolkata section technology cosponsored event, 141 nos. of papers were received & only 76 nos. of selected papers were published. Proceedings were published by McGraw-Hill. The reputed Professor from Germany, Nitherland, Japan, USA attended & delivered there Expert lecture.

v) The syllabus to be revised as per the suggestions made in Washington Accord and some what detailed by the Dayaratnam Committee. Provision for basic science & Humanities, Management, core subjects, professional electives and free elective subjects to be given with about 200+10 credit points.

vi) **It was recommended to undertake project for UG & PG which are related to Industries or of industrial applications.**

vii) **Research which have industrial application is to be encouraged.**

viii) **Regulation for Ph.D has already been prepared but Ph.D programmes are yet to be started with the approval of the regulations by WBUT. Then Ph.D scholar may be admitted in the Institute.**

13/2/2013

Dr. K.C.Patra,
Mentor.