Department of Mechanical Engineering, IIT Guwahati
Minutes of Departmental Faculty Meeting (No. 65/2021: February 3rd, 2021)

Opening Remarks
Department faculty meeting headed by the Head of the Department (Prof S. Senthilvelan) was held in online mode on February 3rd, 2020 at 5:00 PM. A total of 36 faculty members (Prof. S. Bag, Prof. S. Basireddy, Prof. D. N. Basu, Prof. P. Biswas, Prof. A. Dalal, Prof. M. Das, Prof. A. De, Prof. U. S. Dixit, Prof. S. K. Dwivedy, Prof. S. S. Gautum, Prof. S. M. Hazarika, Prof. Shrikrishna N. Joshi, Prof. K. Kalita, Prof. S. Kanagraj, Prof. S. Kapil, Prof. S. K. Kakoty (on DD duty), Prof. P. Khanikar, Prof. V. Kulkarni (on JEE duty), Prof. B. Kumar, Prof. P. Kumari, Prof. S. Mandal, Prof. T. K. Mankodi, Prof. P. Mondal, Prof. N. Muthu, Prof. P. Muthukumar, Prof. A. Nandy, Prof. G. R. Narayan, Prof. S. Panda, Prof. B. Panda, Prof. M. Pandey, Prof. U. K. Saha, Prof. N. Sahoo, Prof. S. Senthilvelan, Prof. D. Sharma, Prof. A. Soti, Prof. R. Tiwari) were in attendance.

Approval of Faculty Meeting (No. 64/2020: January 6th, 2020)
Minutes of the previous faculty meeting dated January 6th, 2020 were approved by the members.

Agenda
1. Prof. S. Bag informed the members that the course feedback points for all post-graduate courses (Jul-Dec 2020) were above 2.5 points. The house was also informed about the decision of the disciplinary committee against Ms. Upasana Sarma, research scholar.

2. Prof. S. Bag on behalf of the DPPC proposed to appoint enthusiastic TAs as Executive Tutor for core courses such as ME101: Engineering Mechanics, CE101: Engineering Drawing and ME502: Engineering Computing Laboratory. Extra INR 25,000/- will be provided per year from DPF to attend international conference starting from second year of individual PhD program. Further, these Executive TA will be given preference for financial support for attending conferences. The selection of Executive TA will be based on his/her course performance (CGPA) in conjunction with the GATE score. The continuation will be based on the performance of TAship for a particular course evaluated by both supervisor and course instructor. A certificate will be issued by HoD with details of the subjects handled by the TA. Selected Executive TAs are eligible to get a basic computer for his/her research work from the department subject to availability of the funds. In such a case, the TA should show the evidence that he/she does not have a computer for his PhD work. The members accepted this proposal.

3. Prof S. Bag informed the house about the recommendations of IPPC on matters requested by the DPPC regarding Mr. Rockey Kumar (196103026), Mr. Biljit Kalita (196103103) and Mr. Munil Kumar (174103017).

4. Prof. Atul Soti on behalf of three member committee (Prof. Karuna Kalita, Prof. Arnab De and Prof. Atul Soti) informed the members that the committee received inputs from several faculties regarding criteria for minimum number of publications for submission of the Ph.D. thesis. Several faculties, Prof. Ujjwal K. Saha, Prof. Poonam Kumari, Prof. Nelson Muthu, were of the opinion that there should not be a rigid rule regarding the number of publication. Prof. Rajiv Tiwari suggested that students should be encouraged to publish by providing them incentives in the form of cash reward, best paper/best thesis award. Prof. Manmohan Pandey suggested that stapled journal papers along with an executive summary should be allowed as a thesis for students who have sufficient number of peer-reviewed publi-

cations. Prof. Senthilvelan requested Prof. Soti to summarize the inputs of the members and submit the same to the Academic Affairs section.

5. Prof. Manmohan Pandey on behalf the three member committee (comprising Prof. Uday Dixit, Prof. Manmohan Pandey and Prof. B. Sandeep Reddy) reported the details of M.S.-Ph.D. and M.Tech-Ph.D. program with provision/guidelines for multiple exit. (See Appendix 1 for details.) Prof. S K. Dwivedy suggested to increase the number of courses from 6 to 10 for M.S.-Ph.D. program and altogether replace this with a single M.Tech+Ph.D. program. Prof. Manmohan Pandey replied that the distinction was made to ensure no backdoor entry for M.Tech degree. Further, Prof. Uday Dixit put forth his objection with regards to increasing the course load of a dual degree student by adding 4 courses which may increase the duration of the programme. The members agreed with the report recommendation broadly. Prof. S. Senthilvelan on consultation with the members forwarded the report to DPPC for further process.

6. Prof. P. Muthukumar informed the members regarding the decision to allot additional Ph.D. students to project PIs that was discussed in a previous department faculty meeting, but was not recorded. Prof. Uday Dixit agreed that this was a practical decision since recruiting JRF does not help in most cases. The members broadly agreed with the policy. Prof. Senthilvelan requested Prof P. Muthukumar and Prof. S. Kanagraj to prepare and present a detailed report on the status of seat allocation and supernumerary allotment of Ph.D. students to project PIs.

7. Prof. Deepak Sharma proposed to appoint a temporary technical Staff for CAD lab with a Rs. 25,000 salary per month. The appointment can be made as per IITG rules for a period of 2 years. Prof. Uday Dixit suggested that a job profile with higher salary ($\sim$ Rs. 35,000 per month) will attract better technical staff. Further, Prof. Uday Dixit suggested an alternative proposal of hiring a service agency instead of contractual recruitment which would ensure better and uninterrupted management. Prof. Rajiv Tiwari suggested that the contract to the servicing agency can be funded from the AMC from the next financial year. Prof. S. Kanagraj opined that, if feasible, Computer Science final year M.Tech students be given this task to manage the CAD Lab with appropriate remuneration. Prof. Nelson Muthu shared issues he faced with having students managing the website. Also, Prof. Arun Kumar Nandy also recommended that it is better that a full-time dedicated person handles the CAD Lab. Prof. Senthilvelan opined that the funding through AMC for hiring services will be explored else the department should go for the contractual position.

8. Prof. Dipankar Basu and Prof. Atul Soti proposed providing desktops from the department fund to PG researchers who do not have access to a dedicated workstations for routine research works after SOAS. Prof. Deepak Sharma informed the house that information on the available computing facility was sought from the members and a roadmap to support researchers working under the newly recruited faculties was in progress. Prof. Senthilvelan proposed to assign funding for procuring desktops for the PG computational lab and requested Prof Deepak Sharma to coordinate on this.

Adjournment

The meeting adjourned at 6:30 pm with vote of thanks.

Proposal for Dual Degree (Masters'+Doctoral) Programs

Preamble:

The practice of taking Ph.D. students directly after B.Tech. was started in order to attract highly talented students. However, in practice, many B.Tech. students take admission to Ph.D. when their GATE score is not high enough to secure them an admission into M.Tech. Hence, many of our Ph.D. students have only a B.Tech. degree but no M.Tech. degree. There is also a scheme of converting M.Tech. program into a Ph.D. program based on the performance in the first two semesters. On completion of their program, they are awarded a Ph.D. degree but no M.Tech. degree. Some such graduates face problems in getting good government jobs (in academic institutes and R&D labs), wherever a masters' degree is either an essential or a desirable qualification. Thus, it is desirable to introduce Dual Degree (M.S.+Ph.D. and M.Tech.+Ph.D.) programs, in order to improve the career prospects of our Ph.D. graduates with only a B.Tech. degree, who are either admitted to Ph.D. directly or convert from M.Tech. to Ph.D. It is also desirable to offer multiple exit options, in line with the National Education Policy 2020.

M.S.+Ph.D. Program with multiple exit options:

- Students with a B.Tech. degree to be admitted to M.S.+Ph.D.
- Direct admission after B.Tech. to Ph.D. to be discontinued
- Six courses (36 credits)
- Comprehensive examination
- State of the art seminar (24 credits) in the subsequent semester
- Progress review seminars (24 credits each) every subsequent semester
- Synopsis seminar
- Ph.D. thesis submission (no M.S. thesis submission)
- Grades of SoAS, first PRS and second PRS to be counted towards CPI calculation
- Early exit with Post Graduate Diploma after SoAS and report submission
- Early exit with M.S. degree after second PRS and M.S. thesis submission

M.Tech.+Ph.D. Program with multiple exit options:

- Students pursuing M.Tech. may convert to M.Tech.+Ph.D.
- Conversion based on performance in the first two semesters
- Criteria for M.Tech. to M.Tech.+Ph.D. conversion same as those for M.Tech. to Ph.D. conversion
- Conversion from M.Tech. to Ph.D. to be discontinued
- Comprehensive examination
- State of the art seminar (24 credits) in the subsequent semester
- Progress review seminars (24 credits each) every subsequent semester
- Synopsis seminar
- Ph.D. thesis submission (no M.Tech. thesis submission)
- M.Tech. specialization same that the student took admission to
- Grades of SoAS and first PRS to be counted towards CPI calculation
- Early exit with Post Graduate Diploma after SoAS and report submission
- Early exit with M.Tech. degree after first PRS and M.Tech. thesis submission

Additional Note regarding present Ph.D. students having only a B.Tech. degree: An option may be given to convert from Ph.D. to Dual Degree (M.S.+Ph.D.) Program. If SoAS or one/two PRS have been completed then the Doctoral Committee may award suitable grades based on reports and seminars.

(Uday S. Dixit)   (B. Sandeep Reddy)   (Manmohan Pandey)