submit the report again at the close of the following semester (after six months). During this semester, he/she can be registered provisionally only (the normal semester fees, however, will have to be paid), and the minimum registration period requirement will automatically get extended by six months. Further, if he receives a scholarship, his/her scholarship for these six months will be stopped.

If, even on having been granted extension, he/she does not submit the progress report within the stipulated time or on resubmission also, the progress is adjudged as unsatisfactory; his/her registration shall be recommended for cancellation by the Deptt/School. Only one such chance can be granted to a research scholar during his entire Ph.D. program.

- A research scholar must complete course work within two initial semesters from the date of registration.
- 10. He should submit his/her research plan proposal and pass the comprehensive examination within 12-18 months of the initial registration. If due to compelling adverse circumstances (as considered so by the DRC/SRC), a research scholar is not able to submit his research plan proposal and appear in the comprehensive examination as stipulated above, or he/she is not able to pass the comprehensive examination within 12-18 months period, he/she, on his/her request, can be granted an extension of six months. During this semester, he/she can be registered provisionally only (the normal semester fees, however, will have to be paid), and minimum registration period requirement will automatically get extended by six months. Further, if he/she receives a scholarship, his/her scholarship for these six months will be stopped. Only one such chance can be allowed to a scholar. If the research scholar fails to qualify the comprehensive examination after getting extension of six months his/her registration will be recommended for cancellation of registration in the Ph.D. program by the concerned DRC/SRC.
- The research scholar must request the HOD/School Coordinator well in time (at least fifteen days before the expiry of the expected date), through his/her supervisor(s), about his/her research plan to appear in the comprehensive examination.
- 12. The research scholar shall be allowed to deliver his pre-synopsis seminar only after completing the course requirements and after publishing/getting acceptance for at least two research papers out of his research work in non-paid peer reviewed SCI/SCIE/Scopus Journals. The research scholar must request the HOD/School Coordinator well in time, at least 15 days in advance, through his/her supervisor(s), about his proposal to deliver a pre-synopsis seminar.
- The request shall be processed by the DRC/SRC concerned within three weeks of the request received.
- 14. A research scholar is required to complete all the requirements for the award of the Ph.D. degree within the specified period as per the regulations failing which he/she will be recommended for de-registration by the DRC/SRC.
- 15. Every research scholar is to abide by all the regulations and the amendments made in regulations from time to time. However, the eligibility conditions for submission of thesis shall remain same as existing at the time of admission.
- 16. It is the responsibility of the research scholar to be in the knowledge of the amendments, if an, in the ordinances and the regulations. No research scholar will be informed individually. The related circulars/amendments would be available in the office of the HOD/School Coordinator/Dean (Academic). The amendments are incorporated in the prospectus and the amended version is put on the Institute website also. The research scholar is required to observe the Institute website regularly to remain updated about any amendments therein. The scholar should maintain regular contact with the supervisor(s) for the purpose.
- No TA/DA etc. is admissible to any research scholar whenever he/she is to visit NIT Kurukshetra, or any other place in connection with the Ph.D. research work.
- 18. In case of a change in the contact telephone number / the correspondence address/e-mail, the research scholar must immediately inform his supervisor, the HOD and the Dean (Acad).
- 19. If, at any time after admission, it is found that a candidate had not in fact fulfilled all the requirements stipulated in the offer of admission, in any form whatsoever, including possible misinformation etc., this matter shall be reported to the Senate, recommending revoking the admission of the candidate.
- 20. The Institute reserves the right to cancel the admissions of any student and ask him/her to discontinue his studies at any stage of his career on the grounds of unsatisfactory academic

performance or indiscipline or any misconduct.

#### O-03 REGULATIONS

The admission in Ph.D. program will be regulated by the regulations made and approved by the Senate from time to time.

The following regulations shall apply to all categories of research scholars pursuing Ph.D. program of the Institute.

#### R-1 CLASSIFICATIONS

The research scholars shall be classified in the following manner

#### (A) On the basis of the time devoted to the Ph.D. program

i) Full-time (ii) Part-time

#### (B) On the basis of the occupation

- i) Teacher, a person serving as the faculty of a department of a teaching institute.
- Non-Teacher, a person serving as non-teaching employee including officer cadre of any Institute/Department, Organization.
- iii) Project staff, a person working on a project undertaken by the Institute (NIT Kurukshetra). The Ph.D. program of such a person should be related to his/her project work.

#### (C) On the basis of the country he/she belongs to

- i) Indian, a person holding valid Indian citizenship
- ii) Foreign nationals admitted through the Embassy of the respective Governments, after getting approval from the Ministry of External Affairs and 'No Objection Certificate' from the Ministry of Education, Government of India or admitted under a MoU. A foreign national can be admitted by the Institute directly on the basis of his/her application and on the basis of his/her performance in the Undergraduate/Postgraduate level of study in the foreign/Indian University. Meritorious foreign nationals may be exempted from the entrance test by the Director on the recommendation of the respective DRC and the office of the Dean (Academic).

### (D) On the basis of the financial assistance

i) Self-financed A research scholar who does not receive financial support (scholarship/assistantship) of the Institute, or from any other source during his Ph.D. program. The institute reserves the right for admission under this category.

#### ii) Fellowship / Scholarship Awardees

- (a) A research scholar getting Institute fellowship / scholarship.
- (b)A research scholar receiving fellowship / scholarship from Government/Semi-Government such as CSIR / UGC / DOE / DST / DBT / NBHM/ INSPIRE etc.
- (c) A research scholar receiving fellowship / scholarship from ICCR, Govt, of India or any institution of the Govt of India.
- (d) A research scholar receiving scholarship from any private entity including foreign University, Trust or sponsoring agency.
- i) There is a provision in the Institute for conducting research work abroad while pursuing Ph.D. Program at the Institute under different schemes including SERB / USIEF / Fulbright / SERB-Purdue OVDE / Commonwealth Split-Scholarship scheme, and working place of the foreign co-supervisor with the following guidelines: -
  - The Ph.D. research scholar should be registered for a full time Ph.D. program at NIT Kurukshetra.
  - Only one visit of maximum one-year duration by a research scholar will be allowed during the entire Ph.D. research work duration.
  - The student may apply for such a programme. The scholar shall be allowed to proceed having cleared the comprehensive exam and the research plan approved by the respective DRC/SRC.
  - 4. The candidate for such visit must fulfil the following requirements:
    - i) All previous progress reports of the Ph.D. research scholar should be satisfactory.
    - ii) The students who have already submitted Ph.D. Synopsis are not eligible to apply.
  - 5. DRC should be satisfied with the research proposal submitted for carrying out such research and

- the research proposal should be part of the ongoing Ph.D. work.
- The time period of such work will be considered as a part of Ph.D. program duration. The total period of Ph.D. duration will be as per the Institute rules.
- The candidate will continue to register at NIT Kurukshetra for the semesters during which he/she is on such visit by completing registration formalities and fee submission.
- During the stay in the university abroad the progress report of the candidate should remain satisfactory.
- If the Ph.D. research scholar is getting an Institute or any other government scholarship, the Institute will stop payment of this scholarship and any other contingent expenses to the research scholar for the duration of such research activity abroad.
- 10. The foreign supervisor may be invited to be the part of the DRC meetings for the respective Ph.D. research scholar for work evaluation / pre-synopsis / viva-voce etc.. No TA/DA and no honorarium will be paid by the Institute for attending such meetings. They may join the proceedings through online mode.
- Joint publications / patents made by the Ph.D. research scholar along with foreign supervisor will be accepted by DRC and the Institute.
- The application under the proposal will be forwarded by the DRC to the Dean (Academic) for verification and necessary approvals if so required.
- No financial liability on NIT Kurukshetra for undertaking such visits.

#### R-2 CONSTITUTION OF DEPARTMENT/SCHOOL RESEARCH COMMITTEE

The DRC/SRC shall consist of the following, provided each member qualifies to be a Ph.D. supervisor:

i.HOD/School Coordinator\*

- ii. All Professors of the Department
- iii. Three Associate Professors of the department by rotation. The term of an Associate Professor will be 2 years. The changeover will be effective on 1stJuly of the year
- iv. Two Assistant Professors of the department by rotation. The term of an Assistant Professor will be 2 years. The changeover will be effective on 1stJuly of the year
- v.Supervisors of the scholars, though they may not constitute regular members (unless covered under (i) or (ii) or (iii)), but they will participate in DRC/SRC meetings when the cases of their respective scholars are taken up.

For Applied Sciences departments/schools/MBA/MCA, if the number of total members including Chairman is less than five, then additional member(s) may be opted from other Departments/schools having requisite eligibility qualifications for Ph. D. supervision for two-year. They will be nominated by the Director.

For Engineering departments, if the total number of members including Chairman is less than seven, then additional member(s) from may be of the allied department may be nominated by the Director.

\* The HOD/School Coordinator shall be the Chairman of the DRC/ SRC. If the HOD/School Coordinator does not qualify to be a Ph. D. supervisor, the senior most qualifying faculty member of the Department will act as the Chairman of the DRC. Faculty members, qualified to be the supervisors, can only be members of DRC. If the Chairman of the DRC/ SRC is not able to attend a DRC/ SRC meeting due to compelling reasons, the senior most DRC/SRC member will work as Chairman, DRC/SRC.

#If a co-supervisor of the scholar is from outside NIT Kurukshetra but from within the country, he will be invited for the DRC/SRC meetings whenever his scholar's comprehensive, pre-synopsis seminar and final examination are conducted. In all such cases, no TA/DA /honorarium will be paid for this purpose. They may join through online mode.

DRC/SRC requires the approval of the Director as and when required. At least 50% of the total members should be present during the proceedings of DRC/SRC.

Minutes of all DRC meetings will be sent to the Dean (Academic).

#### R-3 ELIGIBILITY

#### R-3.1 Educational Qualifications:

(a) An applicant possessing the prescribed qualifications shall be eligible for admission to a Ph.D. program of the institute. The Degrees obtained through distance education programs shall not be considered.

The academic programme as well as the University of qualifying degree must be recognized by AICTE/UGC. The academic programmes of the autonomous Institutes established by the Parliament will not be required to have recognition of the UGC/AICTE. The degrees and academic programmes of the Institute/University will be verified by the Academic Section before registration of the candidate in Ph.D. Programme.

#### (b) Minimum Qualification for Eligibility:

A Master's Degree in Engineering/Technology/Sciences/Humanities and Social Sciences/ Management or equivalent recognised by the Institute with a minimum Cumulative Grade Point Average (CGPA) of 6.5 on a 10-point scale or equivalent as determined by the Senate. In case of award of letter grades in the qualifying degree, the certificate in respect of 60% equivalent grade from the issuing Institute/University must be produced; or 60% marks in aggregate where marks are awarded.

The candidates having Master's Degree must possess full time Bachelor's Degree or equivalent in accordance with R-3.1(a)) also with a minimum Cumulative Grade Point Average (CGPA) of 6.0 on a 10-point scale or equivalent as determined by the Senate. In case of award of letter grades in the qualifying degrees, the certificate in respect of 60% equivalent grade from the issuing Institute/University must be produced; or 60% marks in aggregate where marks are awarded.

OR

Full time Bachelor's Degree in Engineering /Technology or equivalent with a minimum of 80% marks in aggregate or 8.0 CGPA on 10-point scale of equivalent and a minimum of 5 years of work experience at the level of Assistant Professor, Class-I Officer or equivalent) in any reputed Institute/Industry/Government organization, and evidence of Master's level R&D work completed.

#### R-3.2 Additional Eligibility Conditions for Part-Time Ph.D. Program

- (i) <u>Permanent/Regular Employees</u> working in R & D Organisations, national laboratories, Government organizations, industries, PSUs, State Undertakings having sufficient facilities to carry out research at their organisation.
- (ii) Regular faculty of reputed Institute/University having sufficient facilities to carry out research at their place in the related research area.
- (iii) <u>Regular Faculty and Non-Teaching Staff</u> of NIT Kurukshetra working in any department/School, centre, section and cell of the Institute.

All such candidates should have a minimum experience of two years which will be counted from the date of joining in the sponsoring organizations to the last date of application in the Ph.D. programme. The candidate is required to produce the experience certificate at the time of interview by the respective DRC/SRC. Minimum qualification for these candidates is the same as for fulltime candidates.

Part-time candidates are required to submit a "No Objection Certificate" on a proper letterhead from the appropriate authority in the organization clearly stating the following:

- The candidate is permitted to pursue Ph.D. research work on a part-time basis.
- That his/her official duties permit him/her to devote sufficient time for research.
- Facilities for research in the candidate's field of research are available at the candidate's place
  of work.
- The candidate will be sanctioned leave for sufficient duration for conduct of his/her research work, in case, the research facilities are not available in the Institute/Industry/Organization.

#### R-3.3 Eligibility for Institute Scholarship#

- Only GATE / UGC-NET qualified scholars shall be considered for the award of the Institute fellowship.
- (ii) A Full-time research scholar may receive Institute scholarship for a maximum duration of FIVE years of the Ph.D. programme, subject to fulfilling the requirements of eligibility to the scholarship over the successive years of Ph.D. registration period.
- (iii) Initial award of the scholarship at the time of Provisional admission to Ph.D. program will continue for two years from the date of the issue of the scholarship subject to satisfactory performance in every semester. In addition to above, there shall be annual assessment of the performance of the Ph.D. research scholar for continuation of the scholarship on the basis of achievement of milestones in the Ph.D. research work as per table given in the next section.
- (iv) Criteria for continuing the Institute Fellowship:
  - (a) Minimum requirements (Ph.D. Progress Stage)

Sr. No.	Period of Regn. (Years Completed)	Period of Scholarship /Fellowship	Min. Requirement
1.	02	3 <sup>rd</sup> year	(i). Successful completion of Ph.D. Course work with min. 7.0/10.0 CGPA  (ii) Successful completion of the comprehensive examination and approval of the research plan  (iii) Acceptance/presentation of one research paper in national/International level conference  OR  01 research paper out of the Ph.D. research wok accepted/published in SCI/SCIE/Scopus indexed non-paid journal
2.	03	4 <sup>th</sup> year	01 research paper out of the Ph.D. research wok accepted/published in SCI/SCIE/Scopus indexed non-paid journal
3.	04	5th year	02 research papers accepted/ published in SCI/SCIE/Scopus indexed non-paid journal

Scholarships once discontinued will be restored as and when eligibility conditions (as above) are acquired. However, this will be effective from the 1th day of the next month.

(b) Publications must be in the relevant area of research of the research scholar with affiliation to NIT Kurukshetra.

#The scholars receiving scholarship from external Govt./Autonomous organizations shall be governed by the rule and regulations issued and amended by the respective Govt./Autonomous organizations.

(v) No student can receive scholarship/ fellowship from more than one source.

#### R-4 RESERVATION/ RELAXATION

#### R-4.1 Reservation Norms

Reservation in full time/regular Ph.D. seats in various categories will be made as per the norms of the Government of India amended from time to time. Such reservations in various categories will be implemented in all departments/schools on a rotational basis.

#### R-4.2 Relaxation of Eligibility for SC, ST & OBC

For the SC / ST / PwD applicants, the eligibility requirement of marks/CGPA will be relaxed by 5%, or by a CGPA of 0.5 (on a 10-point scale) at both the Bachelor's and Master's level under R-3.1.

#### R-4.3 Exemption from written (entrance) Test

#### (a) Part-Time Ph.D. program:

Regular employees of R & D Org., National laboratories, public /private industry / PSUs / State Undertakings having an MoU with NIT Kurukshetra and with adequate research facilities possessing First Division or 6.5 CGPA on 10-point scale or equivalent at M.Tech. /PG level with minimum 5 years of relevant experience will be exempted from the written test

(b) Full-Time Ph.D. Program NET-JRF from UGC, CSIR etc. qualified candidates However, they shall be required to appear before the DRC/SRC for interview/interaction and to be qualified as per the prescribed norms in terms of the eligibility conditions.

#### R-4.4: Ph.D. Coursework

The candidates admitted under R-4.3(a) may be allowed to undertake Ph.D. course work through regular/blended/Online/weekend classes/MOOCs (details as per annexure enclosed)

#### R-5 ADMISSION

- (a) The applications for Ph.D. programs will be invited from Indian and foreign nationals in the prescribed format. The applications as received will be scrutinized by – the DRC/SRC of the concerned department. After scrutiny, a list of all eligible applicants will be uploaded on the institute website.
- (b) All eligible applicants are to appear in two objective type written test comprising of two papers of PG level as mentioned below:

Paper I: Analytical Skills, Reasoning, Aptitude: Marks: 30; Duration: 30 min.
 Paper II: Area of Research/ Specialization: Marks: 40; Duration: 40 min.

Qualifying marks: 50 % of the total marks (35/70)

Tests will be conducted by the respective departments/schools. Detailed guidelines for the conduct of tests (along with tests schedule) will be provided by the Dean (Academic).

- (c) List of qualified candidates will be uploaded by the office of Dean (Acad) on the Institute website.
- (d) All qualified candidates will be required to appear before the respective DRC/SRC for an interview comprising a brief power point presentation related to the respective research area.
- (e) DRC/SRC will evaluate the candidates and marks will be awarded out of 30 considering all the three components comprising of presentation, interview performance, and academic achievements Qualifying marks: 50% (15/30)
- (f) The respective DRC/SRC will prepare the merit list of qualified candidates based on the total score out of 100, and recommend the seat wise allocation along with the respective supervisor(s). Such allotment should take care of uniform distribution of full-time research scholars (including candidates from other departments) among all eligible supervisors.
- (g) Qualified scholars working in the Govt./Industry sponsored project/fellowship are to be supervised by the coordinating faculty/ principal investigator, provided he/she is eligible to become supervisor.
- (h) Having received the merit list as above, Dean (Acad) will issue the admission letters to recommended candidates for joining the programs.

#### R-6 REGISTRATION

#### R-6.1 Registration Process

A candidate is deemed to have been registered on completion of the admission process for the 1<sup>st</sup> semester of the program. Every research scholar is required to deposit the fees and renew the registration every semester till the submission of the thesis. The renewal of registration every semester shall be subject to the satisfactory progress in the preceding semester in his research work as recommended by the DRC/ SRC. If a scholar's progress is adjudged as unsatisfactory, the DRC/SRC may recommend provisional registration; however, such a chance can be allowed only once during the whole period.

#### R-6.2 Time Period Requirement for Thesis Submission

- (a) The minimum period of registration for thesis submission shall be three years and four years for the full-time scholar, and the part-time research scholar respectively.
- (b) Registration of a candidate for the Ph. D. degree shall be effective, normally from the date of joining unless on account of unsatisfactory progress in work deferred for a later date and shall remain valid for a period of 5 years for full time and 6 years for part time before the expiry of which he/she will be required to submit the thesis. However, the research scholar may be considered for extension beyond this period for one year only if he/she has published / accepted at least one research paper out of his/her research work in non-paid peer reviewed SCI/SCIE/Scopus Journals.

Registration may be extended up to a maximum period of one year by the Dean (Acad) on the recommendation of DRC/SRC. After the expiry of the registration period (with/without extension), the registration shall stand cancelled automatically and the candidate may go for re-registration as per clause 6.3. In case the candidate does not opt for re-registration, the concerned dept. must recommend the cancellation of the registration to the dean academic for approval of the competent authority.

#### R-6.3 Re-Registration

- (a) The research scholar will request the Chairman DRC/SRC with the recommendations of his/her supervisor (s) for re-registration within a period of 3 months of cancellation of his/her registration as per R-6.2. Supervisor/Supervisors will recommend re-registration only if the quantum of required work and publication requirements for submission of Ph.D. thesis can be completed within the next two years.
- (b) The application of the research scholar will be forwarded/recommended through DRC/SRC and dean (Academic) to the Director and he may allow for re-registration to the scholar. If allowed, the research scholar will deposit a re-registration fee of Rs. 20,000/- (Rupees Twenty thousand only) and the date of submission of this fee will be considered as his/her date of re-registration. In addition to the registration fee, the normal semester fee of current semester will be payable, if not already paid. Semester fee for upcoming semesters will be payable as per rules.
- (c) The previous results of his/her course work and comprehensive examinations, if any, will be valid and the research scholar need not repeat these steps again.
- (d) The re-registration research scholar will not be permitted to submit his/her thesis before two years of his/her re-registration. The maximum period for a re-registered research scholar to submit his/her thesis will be five years, beyond which the re-registration will stand cancelled automatically and no further re-registration will be possible under any regulation/ordinance of the Ph.D. programme.
- (e) The eligibility conditions (regarding publication requirements etc.) for submission of thesis shall remain same as applicable on him/her before the cancellation of his/her registration. For all other rules, the research scholar is to abide by regulations and amendments made in regulations from time to time.

#### R 6.4 TEMPORARY WITHDRAWAL

A student who has been admitted to Ph.D. program may be permitted to withdraw temporarily for a period of one semester from the Institute on account of prolonged illness/acute problem in the family provided:

- (a) The student has applied to DRC/SRC for consideration and recommendation to the Dean(Acad)
- (b) The Institute has to satisfy that, inclusive of the period of withdrawal, the student is likely to complete all the requirements for the degree within 5 years (full time) or 6 years (part time) of admission to the Program.
- (c) There are no outstanding dues on behalf of the Institute/ Department/ Centre/ Hostel / Library etc. A student who has been granted temporary withdrawal for a complete semester need not be required to pay tuition fee for the leave period. A student shall be granted only one such temporary withdrawal during the program.

#### R-7 THESIS SUPERVISOR(s)

#### R-7.1 Allotment of Supervisor

Every registered research scholar shall be assigned a Ph.D. Thesis supervisor as approved by the DRC/ SRC of Department/School.

#### R-7.2 Eligibility for Supervisor and Co-supervisor

(a) Any regular faculty of the Institute with at least five research publications in refereed non-paid journals (SCI/SCIE/Scopus) can be appointed as Supervisor and with at least three research publications in refereed non-paid journals (SCI / SCIE / Scopus) can be appointed as Co-supervisor, only on recommendations of respective DRC / SRC of concerned Departments/DRC.

However, the regular faculty of the Institute having three research papers published/accepted in refereed non-paid journals (SCI / SCIE / Scopus) with at least one research paper published/accepted post Ph.D. in non-paid SCI / SCIE journal may be appointed as Supervisor subject to the condition that he / she will be allotted **only one** candidate until he / she fulfils the requirement of minimum five research publications in refereed non-paid journals (SCI / SCIE / Scopus).

#### R-7.3 Maximum number of Co-supervisors

Depending on the problem statement of research work to be conducted, a research scholar may be assigned upto two supervisors, designated as supervisor and co-supervisor.

- (a) If there is request from the candidate for allocation of co-supervisor, the justifications/ reasons must be recorded for the necessity of the same by the DRC/SRC before sending it for approval of the Competent Authority. Co-supervisor can be appointed only apriori to passing the comprehensive evaluation and approval of the research plan of the respective research scholar.
- (b) Eligible faculty members, who are to retire within 4 years, can be appointed only as co-supervisors.

#### R-7.4 Appointment of Alternative Supervisor

Internal faculty member appointed as Ph.D. supervisor is normally expected to be available to the research scholar in the institute till the thesis is submitted.

In case, the supervisor proceeds on leave for a period of up to 12 months, he will continue to act as supervisor (main or co-supervisor). Otherwise, if not interested he/she informs in writing. Co-supervisor to be appointed in case he/she is sole supervisor.

In case sole supervisor moves on long leave (more than 12 months) to serve at a reputed Government laboratory / reputed research organization / reputed Institutes or Universities or industries in India, DRC/SRC will appoint co-supervisor with the consent of the candidate and the main supervisor. However, the status of main supervisor/co-supervisor will interchange, in case the main supervisor does not join the institute within 12 months.

In case of two internal supervisors, if one supervisor moves on long leave (more than 12 months) to serve at a reputed Government laboratory / reputed research organization / reputed Institutes or Universities or industries in India, he/she may be allowed to act as supervisor/co-supervisor. However, the status of main supervisor/co-supervisor will interchange, in case the main supervisor does not join the institute within 12 months.

In case the candidate has not submitted the thesis and sole supervisor resigns, retires or expires, an alternate supervisor may be appointed by the DRC/SRC after discussion with the candidate.

In case the candidate has submitted the thesis and sole supervisor resigns, retires, or expires an alternate supervisor may be appointed by the DRC/SRC as caretaker supervisor after discussion with the candidate. In case of major revision, the caretaker supervisor will provide the required help during that period and he will be automatically treated as main supervisor.

If there are two internal supervisors and one of them resigns, retires or expires, then automatically the other will be the main supervisor.

#### R-7.5 Maximum No of Research Scholars for Faculty

At no point of time, there shall be more than eight research scholars including scholars from outside NIT Kurukshetra being supervised by any faculty member. The faculty supervising research scholars as Co-supervisor either as Internal or External will be counted as ½ (half) for the purpose of counting towards maximum limit for supervising Ph.D. research scholars.

This number excludes Ph. D. scholars who have submitted Ph. D. thesis. Faculty members are required to seek permission of the Dean (Acad) for supervising the scholars registered outside the Institute before giving their consent to the Institute/University for supervision of Ph.D. research scholars.

#### R-8 COURSES AND CREDITS

#### R 8.1 Coursework Credits and Performance

The Minimum Course Credit Requirement is 15. A research scholar will be required to complete the Course work with a minimum CGPA of 7.0 out of maximum 10.0. The research scholar can register for these courses with due approval of the respective research supervisor(s) only.

#### R 8.3 Mandatory Courses

The courses on i) Research Methodology (4 credits) and ii) Research & Publication Ethics (2 credits) will be compulsory for all research scholars.

#### R 8.4 Calculation of the CGPA in Coursework

The CGPA shall be computed on the basis of letter grades obtained in all courses including online courses.

#### R 8.5 Relaxation in Ph.D. Course Work

In case of part-time external candidates with at least 5 years of research experience in R & D Organisations/ National Laboratories/Government Organization, residential requirements may be waived with the approval of the senate. But it will be mandatory for such candidates to complete the course work for the prescribed number of credits in self-study mode, exercising all pedagogy components including assignments, examinations as prescribed for regular course at NIT, Kurukshetra. However, at least one seminar per semester before DRC is mandatory to review his/her progress.

These students will be allowed to do pre-approved certified MOOCs towards 15 credits with the approval of Senate. Examination will be conducted for such certified courses to award grades, by the department. They also need to pass the certified courses of i) Research Methodology and ii) Research & Publication Ethics.

#### R 8.6 Maximum Duration for Coursework

The coursework is required to be completed within 12 months of initial registration or start of the classes in the ensuing semester whichever is later. Maximum 6-month extension will be provided by the office of the Dean (Acad.) on recommendation of the respective DRC/SRC. The course work must be completed before the comprehensive examination.

#### R 8.7 Punitive Action on not passing Coursework in maximum time period

The research scholar is required to pass coursework within a maximum period of 24 months from initial date of registration or start of the 1st semester whichever is later, failing which his registration from PhD. programme will be cancelled automatically. The Academic section will issue office order in this regard.

#### R-9 EVALUATION OF COMPREHENSIVE EXAMINATION

#### R-9.1 Research Plan and Comprehensive Examination

Every research scholar is required to submit his research plan proposal. The research plan proposal should include a brief account of the related work already reported in the literature. In the plan, the research scholar should clearly spell out the investigation/work he/she intends to carry out and justify the need of the same. Subsequently, the research work should be carried out in accordance with the approved research plan. Any change in research plan can be indicated by a research scholar in semester progress reports.

The following procedure is followed for conducting the comprehensive evaluation of the Ph.D. research scholars.

- (a) Every research scholar is required to take a comprehensive examination, which will test his readiness in his/her broad field of research, and his/her academic preparation and potential to carry out the research. The comprehensive examination shall be based on a power point presentation before DRC/SRC.
- (b) Every research scholar must pass the comprehensive examination within 12-18 months of his initial registration.
- (c) The research scholar can apply for a comprehensive examination only after passing coursework requirements. He/she is required to apply at least one month in advance for a comprehensive examination through his/her supervisors. In case of any justified delay beyond the specified period, candidates may request to Dean (Academic) through DRC/SRC for an extension of comprehensive examination. Such extension may be allowed for a maximum period of six months only.
- (d) Candidates should request at least one month in advance for a comprehensive presentation.

#### R-9.2 Improvement of Research Plan and Re-evaluation

In case the research plan is not approved by the DRC/ SRC, the research scholar will have to improve the research plan as per the suggestions of the DRC/ SRC and get it re-evaluated.

#### R-9.3 Punitive Action for not passing Comprehensive Examination

If due to compelling adverse circumstances (as considered so by the DRC/ SRC), a research scholar is not able to submit his/her research plan proposal and appear in the comprehensive examination as stipulated above, or he/she is not able to pass the comprehensive examination within 12-18 months' period, he/she, on his request, can be granted an extension of six months. During this semester, he/she can be registered provisionally only (the normal semester fees, however, will have to be paid), and minimum registration period requirement will automatically get extended by six months. Further, if he/she receives a scholarship, his scholarship for these six months will be stopped.

Only one such chance can be allowed to a scholar.

#### R-9.4 No of Attempts and Maximum Duration for Comprehensive Examination

A research scholar will be allowed a maximum of two attempts to pass the comprehensive evaluation upto 30 months of initial registration, failing which his/her registration will be cancelled. The Academic Section will issue office order in this regard.

#### R-10 PERFORMANCE MONITORING

#### R-10.1 Semester Progress Report

The academic/research progress of each research scholar will be monitored by the research supervisor. For this purpose, at the end of each semester, a research scholar is required to submit the semester progress report to his supervisor.

The progress report should cover:-

- (i) summary of the work done before the start of the semester under consideration
- (ii) the goals set for this semester,
- (iii) the methodology used in achieving the goals, and
- (iv) the extent of the fulfilment of the goal.

The supervisor shall record his\her comments and the result of his\her evaluation as satisfactory / unsatisfactory. After recording his evaluation result, the supervisor shall forward the progress report to Chairman, DRC/ SRC who will apprise the DRC/SRC of the same before forwarding it to Dean (Academic).

A part time research scholar must submit his/her progress report to his supervisor personally and make himself available for necessary discussions with the supervisor.

The scholars must submit their semester progress reports latest by Dec. 31<sup>st</sup> and June 30<sup>th</sup> every year in the office of the respective Departments/Schools. The progress report must have comments and signatures of the Supervisor/Co-supervisor(s).

#### R-10.2 Collection of Progress Report and Sending to Academic Section

The Chairman DRC/SRC in the Department/School will coordinate, every semester, the collection of progress reports written and signed by the scholars and forwarded by the allotted supervisor(s). The Chairman DRC/SRC also ensures that the semester progress report of all the research scholars of his/her department must reach the office of the Dean (Academic) by 31st July/31st January every year. The Chairman DRC/SRC shall also intimate the office of the Dean (Academic) about those research scholars who fails to submit their semester progress report every semester.

#### R-10.3 Provisional Registration & Discontinuation of Scholarship

If due to compelling adverse circumstances (as considered so by the DRC/ SRC), a research scholar is not able to submit his/her progress report by the stipulated date, or the progress of a research scholar is adjudged by the DRC/ SRC as unsatisfactory, he/she, on his/her request, can be allowed an additional chance for the same. He/she will improve his/her work and submit the report again before the last day of the following semester (after six months). During this semester, he/she can be registered provisionally only (the normal semester fees, however, will have to be paid), and the minimum registration period requirement will automatically get extended by six months. Further, if he/she receives a scholarship, his/her scholarship for these six months will be stopped.

#### R 10.4 Unsatisfactory Progress of the PhD. Programme

Only one such chance can be allowed to a research scholar during his entire Ph. D. program. If, even on having been granted extension, he/she does not submit the progress report within the stipulated time or on resubmission also, the progress is adjudged as unsatisfactory by the research supervisor, his/her registration shall stand cancelled automatically and he/she shall cease to be a research scholar of the Institute. The Academic Section will issue office order in this regard

#### R-10.5 Reporting of Punitive Action

The cases where some punitive action is taken will be reported to the Director by the DRC/SRC through the office of the Dean (Acad.)

#### R-12 SEMINAR/ SYNOPSIS/ PANEL OF EXAMINERS

#### R-12.1 Pre-synopsis Seminar

- (a) A research scholar will be allowed to deliver his /her pre-synopsis seminar only after getting at least a CGPA of 7.0/10.0 in coursework and after publishing /getting acceptance of at least two research papers out of his research work in non-paid SCI/SCIE/Scopus indexed Journals. On a research scholar's request for pre -synopsis seminar, DRC/ SRC shall check the journal publications of the research scholar and if found satisfactory, he will be allowed to deliver the pre-synopsis seminar. An expert from a panel of six experts and working in the related research area will also be invited to attend the pre-submission seminar along with DRC/ SRC. The candidate should give a request through proper channels at least one month in advance for pre-submission presentation.
- (b) The schedule of the pre-synopsis seminar shall be notified well in advance, at least three days in advance, making it convenient for the interested to attend it.

#### R-12.2 Synopsis

The research scholar will submit the synopsis only after the "Research Supervisor's and DRC/ SRC" satisfaction on the quality of the work. The synopsis should precisely reflect all aspects of the research work to be included in the thesis.

- (a) The scholars shall submit two hard copies and a soft copy of the synopsis in the same format as specified for the thesis to the Chairman, DRC/ SRC. The DRC/ SRC will examine the synopsis, and the Chairman DRC/ SRC shall forward the synopsis with its recommendations to the Dean (Academic) along with all prescribed documents.
- (b) The synopsis should be submitted normally within 2 months after the presentation of the presynopsis seminar. In case the synopsis is not submitted in the specified period, the research scholar

- may be asked to present another pre-synopsis seminar.
- (c) The research scholar can submit his thesis after a gap of at least one month after submission of the synopsis. However, under exceptional cases it can be relaxed on the recommendations of DRC/SRC.
- (d) The research scholar shall be required to submit a fresh synopsis if he fails to submit his thesis within 8 months of the submission of the earlier synopsis. However, in case a research scholar fails to submit his thesis within the stipulated time and has suitable justification for the same, the Director may on recommendations of the DRC/SRC and on individual merits of each case grant him/her extension in time of not more than two months, i.e., the research scholar may be allowed to submit his thesis within a period not exceeding 10 months from the date of the submission of the synopsis. However, the thesis should be submitted within the prescribed time limit as per regulations.

#### R-12.3 Panel of Examiners

A panel of at least ten external experts, including foreign experts, and the authors of the recent papers in the references cited by the research scholar in the area of his/her Ph.D. work would be suggested to the DRC/ SRC by the Supervisor. The DRC/ SRC will consider the suggested panel and will finally recommend it to the office of Dean (Academic). The panel of ten external examiners, should include five Professors/Associate Professors in Academic Institutes or equivalent from outside India (preferably from developed countries) and remaining five with same cadre from India, preferably from IITs/NITs/IISc. The recommended panel will be considered and approved/modified by the Director.

#### R-13 BOARD OF EXAMINERS

On receipt of the title and synopsis of the thesis, the Director will appoint a Board of Examiners for each candidate from the list approved by the DRC/ SRC. The Board of examiners will consist of two external examiners, one out of which would be from within India, and the other from abroad. These external examiners shall be chosen normally from the panel of examiners recommended by the DRC/ SRC as aforesaid. A person working in the same organization(s)/institute(s) where the research scholar is employed cannot, however, be appointed as External Examiner for that research scholar.

#### R-14 THESIS SUBMISSION

#### R-14.1 Thesis Preparation Guidelines

The research scholar will submit a soft copy of the thesis in PDF format on CD, and two unbound copies with soft covers, typed in English, one and a half spaced, printed in Times New Roman 12 pt. or Arial 11 pt. on both sides of A-4 size papers. The margins on the right page shall be 1.25"—left, 1"—right, 1"—top and 1"—bottom and the margins on the left page shall be 1.25"—right, 1"—left, 1"—top and 1"—bottom. The thesis shall be submitted along with the examination fee and all prescribed documents.

#### R-14.2 Paper Publication Requirement and Innovative Work in Thesis

The thesis shall contain a critical account of the research carried out by the scholar. It should be characterized by discovery of facts or fresh approach towards interpretation of facts and theories or significant contribution to knowledge or development or a combination of these. It should bear evidence of the scholar's capacity for analysis and judgement as well as ability to carry out independent investigation, design or development.

No part of the thesis or supplementary published work should have been submitted for the award of any other degree or diploma.

A research scholar can submit his/her thesis only on having published / acceptance of at least two research papers out of his Ph.D. research work in non-paid peer reviewed SCI/SCIE/Scopus Journals. Thesis should be submitted along with plagiarism report as per the parameters decided by the Institute from time to time.

#### R-14.3 Time Period Requirement for Submission of Thesis

A candidate can submit his thesis within the time period as stipulated in regulations provided that he/she has completed the minimum period of registration.

#### R-15 THESIS EVALUATION

All correspondence/ notifications in regard to thesis evaluation and viva-voce examination of the research scholar; except where stated otherwise, shall be done by the office of the Dean (Academic). Except for the correspondence with the candidate or general circulars/ notifications, the correspondence shall be confidential.

#### R-15.1 Assessment Report and Recommendations

Each examiner will be requested to submit a detailed assessment report and his recommendation within six weeks of the date of receiving the thesis.

- The examiners will examine the thesis individually with a view to judge whether the thesis is a piece of research work characterized by:
  - a) The discovery of facts, or
  - b) A fresh approach towards interpretation and application of facts or theories, or
  - A distinct advancement in technology.
- ii) Each examiner will give his/her opinion about the candidate's capacity for critical examination and sound judgement. The examiner will submit the report on the prescribed form supplied by him clearly recommending that:
  - The thesis is accepted as it is for the award of the Ph.D. degree.
  - b) Thesis is accepted with minor revisions to be incorporated in the thesis and are to be verified at the time of Viva-Voce examination by the Examination Committee.
  - The candidate be asked to resubmit his thesis in the revised form.
  - d) The thesis be rejected.

#### R-15.2 Appointment of Alternate Examiner

In the event of the thesis report not being received from an examiner within a period of three months from the date of dispatch, the Director may approve an alternate examiner in his place for evaluating the thesis from the approved list of examiners. Before corresponding with the alternate examiner, the original examiner must be informed of the cancellation of this appointment, stating the reason therein.

#### R-15.3 Examiner Evaluation and Recommendations

- (a) If both the examiners recommend acceptance / rejection; the thesis be accepted / rejected respectively.
- (b) If one examiner recommends acceptance and other rejection, the thesis will be sent to the third examiner. If the third examiner recommends acceptance / rejection, the thesis will be accepted / rejected respectively. If he recommends revision, the research scholar shall resubmit the revised thesis. The revised thesis will be sent to the same examiner who has recommended revision of the thesis. Only if at least two examiners recommend the acceptance, the thesis will be accepted, else rejected.
- (c) If one examiner recommends acceptance and other recommends major revision, the research scholar shall resubmit the revised thesis. The revised thesis will be sent to the same examiner who has recommended revision of the thesis.
- (d) If both the examiners recommend major revision, then a third examiner will be appointed and the revised thesis will be sent to all three examiners. If at least two examiners recommend acceptance, the thesis will be accepted, else rejected.
- (e) In all other cases the thesis will be considered as rejected.
  - Any doubt arising out of the procedure laid down above shall be referred to the Director for consideration.

#### R-16 RESUBMISSION OF THESIS

When a thesis is to be revised and resubmitted, the research scholar should be informed about the comments of the examiners. The revised thesis is to be submitted within one year through DRC/SRC of the respective Department/School.

The revised version of the thesis will be sent to the same examiner who has recommended revision of the thesis for his/her fresh recommendations.

#### R-17 VIVA-VOCE EXAMINATION

#### R-17.1 Permission for Viva-Voce Examination

On receipt of the thesis examination reports from the examiners, these are to be put up to the Director for decision. The Director, on the basis of the reports will decide whether the candidate should be allowed to appear in the viva-voce examination or not. The Director's decision on the thesis reports shall be communicated to the Chairman of the concerned DRC/SRC. The Chairman DRC/SRC will form the Examination Committee for the viva-voce examination. The viva-voce examination shall be open to be attended by Members of the Department Research Committee, all faculty members of the Department, other research scholars and other interested experts/researchers of the institute.

In addition, the viva-voce examination can also be conducted on Skype or similar online tools after seeking prior approval of the Director.

#### R-17.2 Open Defence of Viva-Voce Examination

On having been allowed to appear in the viva-voce examination, the research scholar is to defend his thesis orally before the Examination Committee comprising the supervisor, one DRC/ SRC nominee and one Indian external examiner. The Chairman DRC/ SRC will coordinate with all the examiners and the research scholar and will fix a date for holding the viva-voce examination. The questions / queries communicated by the thesis examiners in their reports shall be intimated to the candidate through his supervisor at least one week before the date of conduct of the viva-voce examination. The schedule of the viva-voce examination shall be adequately notified so as to enable interested staff members and students to attend it.

A notice in respect of the Viva-Voce examination will be issued at least one week in advance and the same may be uploaded on the Institute website for wide publicity. The notice will also be circulated among all the Departments/Schools. The research scholar will publicly defend his/her Viva Voce Exam.

#### R-17.3 Appointment of Alternate Examiner for Viva-Voce Examinations

In case of non-availability of the Indian external examiner for conducting the viva-voce examination, the Director may appoint an alternate examiner to conduct the viva-voce examination from the existing panel. If the need be, the DRC/ SRC may suggest a fresh panel of examiners.

#### R-17.4 Viva-Voce Examination Process

- The viva-voce examiner shall be provided with the reports of the thesis examiners before the vivavoce examination.
- (ii) The Ph.D. thesis supervisor shall assist the Chairman DRC/SRC in arranging the viva-voce examination of the candidate as early as possible.
- (iii) In case of the inability of the research supervisor to have the viva-voce examination conducted due to any reason whatsoever, the Director may appoint another examiner, in place of research supervisor, to conduct the viva-voce examination, from amongst the faculty of the department concerned who belongs to the particular field in consultation with Chairman DRC/ SRC. In such cases also, the Ph.D. work will be deemed to have been carried out under the guidance of the supervisor (s) only.
- (iv) After the viva-voce examination, the examiners will prepare a detailed joint report giving one of the following three recommendations.
  - (a) recommended for the award of the degree

- (b) The thesis be resubmitted after a minimum period of six months incorporating the suggestions of the examiners.
- (c) not recommended for the award of the degree

The report shall be sent by the Chairman DRC/ SRC in a confidential cover to the Dean (Acad).

(v) Any other matter not explicitly provided herein or of an exceptional nature, may be referred to the Director for his decision.

#### R-18 AWARD OF THE Ph.D. DEGREE

#### R-18.1 Doctoral Committee

On the completion of all stages of the examination, a Doctoral Committee consisting of the Director, the Dean (Academic) and the Chairman of the DRC/ SRC concerned shall examine the reports of all the examiners (thesis and viva-voce) and decide as under: -

- (a) that the degree be awarded;
- (b) that the degree shall not be awarded.
  - i) The thesis is to be resubmitted.
  - ii) The thesis is rejected on the conclusion that the thesis is not genuinely the work of the candidate

For (b) (i) above, the Committee, if required, shall provide to the candidate a list of all corrections and modifications to be made in the thesis, including suggestions made by the examiners during the thesis evaluation, and the result of the candidate will be declared after the candidate submits two copies of the corrected thesis certified by the internal examiner that the necessary corrections and modifications have been made.

#### R-19 INSTITUTE SCHOLARSHIP/FELLOWSHIP

#### R-19.1 Award of Scholarship/Fellowship & Contingency Grant

Those candidates who are admitted on full-time basis are considered on request, for the award of Institute scholarship of the amount as decided by the Board of Governors and directed by the Government of India from time to time. The research scholar must submit a certificate to the effect that he is not in receipt of any financial aid from any other source for pursuing the Ph.D. research work. The scholars getting Institute scholarships are required to provide 8 hrs of work per week as directed by the Head of the Department/ Director.

The scholars receiving fellowship amount will be designated as Junior Research Fellow (JRF) as per the directions of the Ministry of Education (MoE) which is subject to change on directions of the competent authority from time to time.

In addition, the scholars will be provided a contingency grant in accordance with the rules of the Institute. It is to be noted that admission to the programs and award of scholarship are not linked. Admission to a program does not guarantee the award of scholarship.

#### R-19.2 Tenure of Scholarship/Fellowship & Award of SRF

The scholarship/fellowship for the tenure of initial two years from the date of joining the respective Department / School is equivalent to JRF. The elevation to SRF after two years will be conducted as follows:

The chairman of DRC/SRC will propose an External Review Committee (ERC) in consultation with the respective supervisor(s), to Dean (R&C) for securing approval of the Director, comprising of the following:

- Chairman DRC/SRC or his/her nominee
- 2) One external subject expert from outside the Institute preferably from NITs/IITs
- 3) Supervisor/Co-supervisor of the research scholar as Member Secretary

An honorarium of Rs. 5000/- will be paid to the external subject expert along with TA/DA. However, he/she may join the meeting through online mode. The ERC will judge research work of the research scholar and submit a report. If the research work is found satisfactory, his/her tenure of the scholarship/fellowship will be extended for a further period of 3 years under the enhanced emoluments under Senior Research Fellowship (SRF) scheme. The research scholar will be redesignated as SRF.

In case the work for the two years is not found satisfactory, the research scholar will get scholarship/fellowship under JRF scheme for the remaining three years' subject to satisfactory performance in the progress reports.

Thus, the total period of fellowship (JRF and SRF) is five years and there is no further provision of extension in this regard.

#### R 19-4 Duties of Research Scholar Receiving Scholarship/Fellowship

The research scholar with the consent of the head of department will assist in the academic work including conduct of tutorial classes and lab work for 8-hour/week.

#### R-20 LEAVE AND ATTENDANCE

All full-time research scholars (with or without scholarship) are required to mark their daily attendance in the attendance register maintained by the Deptt. The Chairman DRC/ SRC shall also maintain a proper leave account of each such scholar. The leave of a research scholar should be recommended by his Supervisor and shall be sanctioned by the Chairman DRC/ SRC.

A full-time research scholar is entitled to avail leave as per Leave and Attendance Rules formulated and amended from time to time by the Senate. Presently these are as under:

- (i) A full-time Ph.D. research scholar may avail 8 casual leaves and 2 leaves in lieu of RH. The research scholar will not be entitled to mid-semester breaks/vacations, summer and winter vacation. Any absence from the institute without sanctioned leave may lead to loss of fellowship for the period of absence.
- (ii)A full time Ph.D. research scholar may be allowed to proceed on long duty leave (maximum up to one year) to some organization if required for research progress. However, it should be with the due approval of competent authority.
- (iii) A full time Ph.D. research scholar may avail the duty leave for attending one conference/workshop/academic event per semester.
- (iv) A full time Ph.D. research scholar may be allowed to avail the duty leave for attending more than one conference/workshop/academic event per semester from the Dean(Academic).
- (v) A full time Ph.D. research scholar may be allowed to avail the duty leave for attending one conference/workshop/academic event per semester from reputed University/Institutions of developed countries by the Director only in deserving cases only. The DRC/SRC will recommend such a proposal and forward the same to the office of the Dean (Academic) for taking approval from the Director.
- (vi) Maximum non-commuting 10 Medical leave per year as approved by the Senate will be provided to the research scholars on medical grounds on the recommendations of the SMO/MO of the Institute Health Centre.
- (vii) The women research scholar will be eligible for Maternity Leave as per MOE rules. The minimum and maximum registration period will be extended by the leave period only subject to a maximum of six months. However, the Institute Fellowship may be given for a maximum period of Five years only, subject to fulfilment of Ph.D. Ordinance, from the date of initial registration.
- (viii) Any additional leave of any kind can be permitted to the research scholars by the office of the Dean(Acad), if there is provision in the OM issued by the Ministry of Education, Govt. of India.

#### R-21 CANCELLATION OF REGISTRATION

Registration of a candidate can be cancelled in any one of the following eventualities, with due approval of the Director.

- (i) If a full-time research scholar absents himself/ herself for a continuous period of four weeks without prior intimation/ sanction of leave.
- If a research scholar resigns from the Ph.D. program.

- (iii) If a research scholar fails to renew his registration within the registration period as notified from time to time.
- (iv) If a research scholar does not submit his semester progress report by the stipulated date or his academic progress is found unsatisfactory.
- (v) If a research scholar does not clear the comprehensive evaluation as stipulated.
- (vi) If a research scholar is found involved in an act of misconduct and/ or indiscipline and a competent authority has recommended termination. For all purposes, the conduct/ discipline rules applicable to B.Tech. / M.Tech. Students of the Institute shall apply to Ph.D. research scholars also.
- (vii) If at any stage, information furnished by the research scholar in his application is found false or incorrect.

#### R-22 GENERAL

#### R-22.1 Authority of Senate and Recommendation to the Senate

The Director as the Chairman, Senate will interpret the difficulties of the above regulations and the same will be Notwithstanding anything contained in these Ordinances & Regulations, all categories shall be governed by the rules and procedures framed by the Senate, and in force from time to time.

#### R-22.2 Doubt and Disputes of Regulations

Any doubt or dispute about the interpretation of these Ordinances and Regulations shall be referred to the Director whose decision shall be final.

#### R-22.3 Amendments in the Regulations by Senate

Eligibility for admission to Ph.D. programs in different disciplines may, from time to time, be reviewed, approved by the Senate, and implemented

#### R-22.4 Resolution of the Difficulties by Director binding on all the stakeholders

The Director as the Chairman, Senate may refer the issue to the Senate for interpretation of the Regulations, if he/she deems it necessary.

#### O-04 EXCEPTIONS AND ISSUES

(i) All issues which need further interpretation or not covered under regulations defined will be considered by the Director on the recommendation of the following committee.

(1) Dean (Academic) Chairman
(2) Dean (R&C) Member
(3) Head/Coordinator of the concerned department/School Member
(4) Ph.D. supervisor concerned Member

- (ii) Recommendations of the committee will be placed before the Director for consideration and approval.
- (iii) All such approvals will be reported to the Senate for ratification and inclusion of the same in the Ph.D. regulations.

....

#### S 47.05 To consider the proposal for enhancement of fine on the students for late registration to be effective from the odd semester registrations of AY 2022-23 onwards.

in Academic Calendar, the registration period for the next semester is mentioned without late fee and with late fee of Rs. 500/-. However, it is observed that many students are not registering in time. To encourage the students for timely registration, it is proposed that the fine may be enhanced as per the table given below:

Sr.No.	Registration period	Fine to be charged from the student
1.	Upto one week after the last date of registration as notified in the Academic Calendar	Rs. 1000/-
2.	2 to 5 weeks after the last date of registration as notified in the Academic Calendar	Rs. 2000/-
3.	Beyond 5 weeks after the last date of registration as notified in the Academic Calendar	Rs. 5,000/-

However, in case of genuine reason for the delay, the Director on recommendations of the Dean (SW) may exempt the fine to the extent as deemed appropriate, if requested by the student.

If approved, the change will be effected in the Academic Calendars for AY 2022-23.

28KM - WZ

The Senate may consider and decide.

S 47.06 To consider the requests of B.Tech. students with a gap of more than two complete semesters to continue their further study.

> Mr. Hemant Jain, Roll No. 11915058, B.Tech. student of ECE requested to the office of Dean (Acad.) on 14.9.2021 to continue his study from 2nd semester onward as he was absent from the Institute after his 1st semester exam. i.e. Nov./Dec. 2019 due to critical medical situation of his mother and being the only child of his parents and his father is also no more with them. He has submitted medical documents of his mother for the said absence period.

> As per office record available in Academic Section, he did not register from 2<sup>nd</sup> semester onwards and remained on unauthorized absence since somewhere after start of 2<sup>nd</sup> semester. Later his name was removed from the Institute roll sheet due to unauthorized absence of more than one year.

> Similarly, Mr. Shaurya Pratap, Roll No. 11914142, B.Tech. student of Electrical Engg, completed his 3rd semester and in 4th semester he joined the National Defence Academy. Now, due to health issue, he discontinued his military training. He has requested to the office of Dean (Acad.) for permission to continue his study from 5th semester onwards.

> As per clause 5.1 of Academic Regulations for UG programmes, the total period of absence cannot exceed two semesters during student's stay in the institute. In case of above students, the period of absence is more than two complete semesters on the date of their applications. However, the clause 5.2 of Academic Regulations, which is reproduced below, has provision for consideration of such requests by the Senate:

"5.2 Notwithstanding the above, the Senate may at its discretion, on appeal, relax any of the conditions of the clause 5. Its decision Shall be final and binding."

The relevant documents are attached as Annexure S 46.06 from pages 81 to 88 .

RAM LEG

In view of above, the Senate may consider and decide.

Mr. Hemant Jain S/o Sh. Sanjay Jain Roll No. 11915058 a student of Electronics & Communication Engineering B. Tech. Program requested on 14.09.2021 to study 2<sup>nd</sup> semester onward as he was absent from the Institute after his 1<sup>st</sup> semester examination i.e. Nov/Dec 2019 due to critical medical situation of his mother and he is the only child of his parents as his father is no more with them. He has submitted medical documents of his mother for the said absence period.

As per office record available in Academic Section, he did not register in 2<sup>nd</sup> semester onwards and remained on unauthorized absence since somewhere after start of 2<sup>nd</sup> semester. Later his name was removed from the Institute roll sheet due to unauthorized absence of more than one year.

As per Clause 5.1 of Academic Regulations for UG Programs, the total period of authorized/unauthorized absence cannot exceed two semesters during student's stay in the Institute.

There is no rule for allowing the students for continuation of their study after their gap of more than two semesters. In case of Mr. Hemant Jain, his period of unauthorized absence is more than two complete semesters on the date of his application.

However, the Clause 5.2 of Academic Regulations for UG Programs which is reproduced below, has provision for consideration of his request by the Senate.

"5.2 Notwithstanding the above the Senate may at its discretion, on appeal, relax any of the conditions of the Clause 5. Its decision shall be final and binding."

In view of above, it is proposed that his case may be referred to the Senate in next meeting for consideration and decision. If approved by the Senate, he may be allowed to continue his study in B. Tech. Program with B. Tech. 2022 batch

Submitted for kind information and approval please.

19.04.22

Supdt. SG-II (Academic

Supat. Su-II (Academic

Prof. I/C (Academic)

Dean (Academic) 1914

REGISTRAR OFFICE

Dt. 1.91 . 1. 2 4 128

Diary No.726.....Registra (In-Charge

19/04/2

Director & Chairman Senat

Ry ROM

DR A

Mc Madhe

professional course(s). This concession of additional semester(s) for improvement will be counted within maximum duration permissible for

The Percentage of marks obtained by a student if so required, can be calculated as = CGPA multiplied by 9:00.

- 4.3 At the end of each semester (i.e. after End Semester Examination), students Will be supplied a Grade Carding cating the Grades secured in each course and up to date CGPA
- 4.4 A Student is deemed to have completed the requirements for graduation lesing and a cligible for the award of degree if a straight live some subtract if a
  - he/she has satisfied all the academic requirements as per the regulations.
  - he/she has paid all fees due from him/her. (d) Schedale
  - there is no case of indiscipline pending against him/her. SAMMES

#### Absence/Dropping of Semester

If a student absents form the Insitute with due permission of the Dean-Academic due to iliness; he/she will be permitted to rejoin provided the period of absence does not exceed one semester, if the period of absence is more than one semester or the absence is for reasons other than illness, the 31-21 case will be referred to the Director by Dean Academic with his/her recommendations.

o combine The student will, however, be charged the prescribed fee even for the period of absence.

In no case, the total period of absence shall exceed two semester during student's stay in the Insitute. In that eventuality, the student's name shall be struck off from the rolls of the Institute.

5.2 Notwithstanding the above the Senate may at its discretion, on appeal, relax any of the conditions of Clause 5, its decision shall be final and binding.

# Residmission/Duration of semisimum of la language landsone

edmina w

1326.100014 case a student absents from the Institute without prior permission, he/she may be permitted to join back with the permission of the Director on

14/09/21 The stranfAcadehye DRICA cont.) NIT Kurusshetson P/2- puturentile Haryona Supational) Un-5/4/9/4 Date: 14-09-2021 Subject: Application for Re-admission. By the news of this application I want to say that I was a Student of 2019 butch, ECE Dranch but I had to leave college after 1st Semester because in November 2019, my mother obeling her regular medical cheekup got to know that she had blaim tumos along with 1st stage cancer. Myselethus took her to the hospital I had to go there with my cousin Since I'm the only child of my parents Also sine my tather isn't with as anymore, I had to quit college to take case of her. I was with my mom at home and after that could stooted which indirectly hit as financially. I could not Send on application mentioning the Acason. Eventher, I one this negligence. Now my mon is completely live by the grace of Golden would to continue my studies. So tively he-admit me to the college from Ist senestor (if possible). Thanking You. Pending and philad and Yours Obediently. Hemant Jam, 11912028 Ell Bronch Mapi- 85 02 134 001:00 00 ...

# Patho Care & Research Centre

S.No. 2075/18-

Address: 5145

Age: 45 sm

Telmen/cmail 1D Referred by Dr.

Specimen received on: 194219.

Specimen reported una 30/12/19

Specimen: Markets put us block on 3082/19.

FINAL REPORT Test report status

Microscopics Morphology is of Siffine annacytoma WIRD grade-IL

MARKERS

GEAP and IDII I are positive in the humor cells

ATRX is lost.

PKV is approximately 10-15%.

KI 67. MIH is approximately 2-4%.

IMPRESSION: Imprime warkers are of diffuse astrocytoma WHO gradu-II.

COMMENTS Further evaluation by molecular and cytogenetic study is to see and

Supplied across lifety from the above the money. Lectures to their areal in 1980 PEX 37 (E.S. The productly and flow choice and the improve and to

Pathologist

(Dr Shashi Singhvi) MD Path & Micro LL H.

Ex-Vice-Champiler \$1.048



# S.M.S. HOSPITAL, JAIP SONI HOSPITALS CT & MRI CEN

Patient Namo	Dienta juva	Patient (5)	182251750
#A(g(e)	(20) 77	Date	105-109-7700
Gender	Vicennia	Ref. Operor	1865

# MRI BRAIN WITH CONTRAST

(Sollow, up past open tilve case of holds fronteger delta), at the years will be tromonariotal completome.

## Findings

Small feet of altered alignal Intensity, hyperintense on 72W and FLAIR's hypothtense on 11W images noted in right frontal tobe in parasect location extending in periventricities region, lew hypointense foot on FLA are noted within the lesion, no buylous enlishesment is noted on a contrast scan - 7 post op changes with gliotic foci ? cause.

Extra axial spaces are mildly prominent with quaration of plateral law and third ventricles - suggestive of diffuse age related cerebral strophy.

Few small hyperintense foot on 724 and FLAIR, are noted in felt coradiata - ? old facunar infarcts.

Otherwise cerebral parenchyma appears to be normal No misting soils spoon Corpus Callosumis normal Sella and parasellar regions to net revent any contress of sense by Carebellumiand brainstem are unremarkable Cerebellar forests are roman in location

Dr. Reini Somani M.D.

Rmc (0)/217

Gonsulfarti Raciologist
Any sin-test discrepancy places discrepant raciologist. Patent's spenticulation in reporting to in no way this profession to be utilized for any medico legal purpose.

# SMS MEDICAL COLLEGE AND HOSPITAL SAWAI MAN SINGH ROAD, JAIRUR Department of Neuro-Surgery

Unit Head : Dr. ASHOK GUPTA (Unit 5) Unit Doctors

No	Doctor Name	Designation	5 No	Boctor Name	Designation
(1)	Dr. Ashak Gupta	Sr.Professor	(2)	Dr. Arvind Sharma Dr. MukeshHhaskar A	Assit. Professor

		PATI	ENT DETAILS	S	
Name: - Dept.: Unit: -	NAME A Negro Surgery Loss S BARRES	C R Nov. M R D Nov. Category 1 Dis. Typics	101190000000 (0119000000 (0119101A ( S) (elieved	Adm, Date: Dis. Date: Print Date:	#EMALIE 45 YOU ADDRESS FOR ADD

#### CASE SUMMARY / DIAGNOSIS

Diagnosis:

THE PATIENT PRESENTED WITH

HEADACHE SEIZURES AND INTERMETTENT LOSS OF Chief Complaints :

WEAKNESS NO HO TRAUMA

#### GENERAL PHYSICAL EXAMINATION

Blood Pressure: 120 70 MM HG.

PRI

ESIMIN.

Temp:

#### SYSTEMIC EXAMINATION

PT CONSCIOUS SPONTANEOUS EYE OPENING. OBEYING COMMAND, TELLING NAME, PUPIL Any Other Description : HILATERAL 3MM REACTIVE TO LIGHT CRANIAL NERVES ALL GROSSLY NORMAL

INVESTIGATION DETAILS



### INDOWESTERN BRAIN & SPINE HOSPITAL

DR. KAMAL GOYAL

Was New Yorks Beptis Let Hottl, Jeipus 202015 Fm. 5141-2744441 - 42

FULSE 92 15 Kg

OPE IN Name Wood San

1906714 UZ Om 1810146 UZ Om Mrs VIMI, R. JAJN DZ-OHI-18 BANIAY JAIN Aty / Female ASSAM

9991000363

A UNIT OF DINA NATH JAGDISH PRASAD HEALTHCARE AND HOTEL BYT LTD.

the steed works - ---Date- 22-06-2022 To The Director National Institute of Jechnology Kurukshetra Date: 17 June 2022 Subject: Kegarding continuation of missed Semester Respected Sir, 1-SHAURYA PRATAP, 11914142 am a student of B. Tech electrical engineering 2019-23 batch. I have completed my 3 semesters here with CGPA 9.7 in my 4th semester. I got recommended for Naval officer and joined the Takind Defence Academy. Now die to Health issues, I have to scontinue military training. I had attended half of 4th semester at an detained in one practical subject which I'll clear. want to join and report my 5" somester in academic year 2022-23 arting in July 2022. I'll clear my re-appear exams in spector subsiguent semesters. I humbly request you to then me the same. I would be highly gratiful ours Sinarry SHAURYA PRATAP 1914142 3 Teh Electrical Engineering Syldn Showyalliat @gmach.com 1717043633 (A tead) The Secretar Fire of somewheel studen & he has necessed who 3rd Sen ester

#### S 47.07 To consider the proposal for conduct of M.Tech thesis Viva voce examination in online mode as well.

As per the decision in the 46th Senate meeting vide item no. S 46.11, the evaluation process for M.Tech. Dissertation/internship/Project work from even semester of AY 2021-22 onwards will be carried out as per guidelines notified vide no. Acad./2019/1238 dated 21.11.2019 and again vide letter no. Acad./2022/581 dated 19.4.2022.

However, office of Dean (Acad.) has received a letter no. EED/2022/1210 dt. 1.7.2022 from HoD, Elect. Engg. requesting to allow conduct of M.Tech. thesis viva examination in online mode. The justification given for the same is that many of M.Tech. students have left the Institution after submission of the M.Tech. dissertation to join the job or the higher studies in India and Abroad and the External Examiners for the thesis evaluation may also be interested to conduct the M.Tech. viva voce examination in online mode. This may also facilitate timely conduct of the M.Tech. dissertation viva voce examination.

It is pertinent to mention here that the Senate in its 31st meeting held on 30.10.2017 vide agenda item no. S 31.17 has approved the conduct of Ph.D. viva voce examination in online mode with the approval of Competent Authority.

In view of above, it is proposed that the conduct of M.Tech. dissertation viva-voce examination may be allowed in online mode as well following the same constitution of Committee, evaluation criteria, and guidelines notified vide no. Acad./2019/1238 dated 21.11.2019 and again vide letter no. Acad./2022/581 dated 19.4.2022. It is also proposed that the HoD/School Coordinator of the respective department/school may be authorized to accord permission for the same.

The relevant documents are attached as Annexure S 47.07 from pages <u>90</u> to <u>95</u>.

RAM LES

The Senate may consider and decide.

NO. Acad Munoclas /2 0/107/2022

#### DEPARTMENT OF ELECTRICAL ENGINEERING NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA

No. EED/2022/ /3 //.

Dated: 01.07.2022

Sub: Request to allow conduct of M. thesis Viva examination in online mode

It is to inform that many students have left the Institution after submission of the M. Tech dissertation to join the job or the higher studies in India and Ahroad.

Many of the students have requested Head of the Department to allow them appearing in online mode for their M. Tech dissertation viva examination so that they can obtain the Provisional degree certificate timely to join jobs and higher studies.

External Examiners recommended by the DAC for the thesis evaluation may also be interested to conduct the M. Tech viva voce examination in online mode.

It is therefore requested, to allow the conduct of M. Tech viva voce examination in online mode. This will also help the candidate to get provisional degree certificate timely to join their jobs and also the higher studies.

(Ashwani Rumat)

Head of the Department

Dean (Acad)

5.00.0

#### NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA -136119

No. Acad /2022/58]

19 April, 2022

#### EXAMINATION NOTIFICATION FOR EVEN SEMESTER OF AY 2021-22 (M.Tech 4<sup>th</sup> Semester)

The students of M Tech 4th semester were allowed in the institute for their dissertation work from 12.02.2022 onwards as per guidelines issued by the Govt. of Haryana on account of COVID-19.

The Senate in its 36th Meeting held on 21.09.2019 vide item no. S36.08 approved the M.Tech Internship guidelines and evaluation criterion for M.Tech Thesis/ Project work/ Internship for new M.Tech scheme. The Senate decided that the guidelines will be applicable to the M.Tech Students admitted in AY 2019-20 onwards. The decision of the Senate was notified vide no. Acad /2019/1238 dated 21.11.2019 (copy attached).

The above guidelines were deferred for AY 2021-22 vide letter no. Acad /21/503 dated 23.04.2021 due to prevailing conditions of 2<sup>nd</sup> wave of COVID-19. The Senate in its 45<sup>th</sup> Meeting held on 10.12.2021 vide item no. S45.06 decided that examination of terminal semester of M. Tech and MCA students be conducted as per guidelines approved for AY 2020-21 which was notified vide no. Acad /22/451 dated 28.03.2022.

The above decision of the Senate and the decision of 62<sup>rd</sup> SCSA Meeting regarding conduct of end semester examination for even semester of AY 2021-22 was reviewed in the 46<sup>th</sup> Senate meeting vide item no. S46.11 and decided that the end semester examination will be conducted in offline mode except for B. Tech 2<sup>rd</sup> Semester and MCA 2<sup>rd</sup> Semester for which the decision will be taken by the Chairman Senate later. The above decision of the Sanate was notified vide no. Acad /2022/548 dated 13.04.2022.

All the students of M.Tech 4th semester are hereby informed that the Evaluation process for Dissertation / Internship/ Project work in the current semester will be carried out as per guidelines notified vide no. Acad./2019/1238 dated 21.11.2019. The last date for submission of M.Tech Dissertation/ Internship/ Project work will be 30.06.2022 without paying any additional fee for next semester. However, GATE scholarship will be paid to M.Tech students upto 30.06.2022 or date of submission of thesis whichever is earlier subject to fulfillment of conditions for the scholarship. It may be noted that the students can submit their Dissertation/ Internship/ Project work only after last day of teaching in current semester i.e. 29.04.2022.

All the HODs and School Coordinators are kindly requested to follow above notified guidelines for evaluation process for Dissertation/Internship/ Project work from Even semester of AY 2021-22 onwards.

Encls: As above

Deputy Registrar (Academic)

#### Copy to:

- 1. All HODs/ School Coordinators
- 2. Prof. VC (Examinations)
- 3. Prof. I/C (CCN) with a request to upload it on institute website.
- 4. Prof. I/C (Accounts)
- Sr. Secretary to Registrar
- 6 AR to Director for kind information of the Director



#### NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA-136119

No Acad /2019/1238

The Senate in its 36th meeting held on 21.9.2019 vide item no. S 36.08 noted the report of Committee constituted to modify the existing M. Tech. Internship guidelines and proposed evaluation criterion for M. Tech. Thesis/Project work/Internship for new M. Tech. scheme. The general guidelines for evaluation of PG dissertation/internship/Project work are attached. This will be applicable to PG students admitted in academic year 2019-20 and onwards.

This is for kind information and further necessary action.

Encl: as above

Dean (Academic)

Dated: 21.11.2019

Copy to

- 1. All HoDs/School Coordinators
- 2. Prof. I/C (Exam.)
- 3. Sr. Secretary to Registrar
- 4. Sr. Secretary to Director for kind information of the Director.

# General guidelines and evaluation proposal of PG Dissertation/Internship/Project-work

(effective from 2019-20 Academic Session and onwards)

#### A. General Guidelines for M.Tech. Programmes.

- Orientation programme for fresh admitted students will be organized during the first week of first semester
- 2 Each elective subject should have some minimum percentage of students admitted in that specialization. There should be at least five students for running any elective subject.
- MTech Dissertation Supervisors need to be allocated latest by the end of November in the first semester
- Open electives, if opted from other departments, should have at least 3 credit points. These are to be allocated centrally.
- 5 Any doubt or dispute about the interpretation of the guidelines shall be referred to the Dean (Academic) whose decision shall be final.

#### B. Evaluation Process for Courses other than Dissertation/Internship/Project-Work

(a)	Theory Papers Mid Semester-I Examination	15	1
2	Mid Semester II Examination	15	î
3	Teacher's Assessment	10	1
4	Attendance	10	ï
5	End Semester Examination	50	Ŷ.
	Total	100	
(b)	For Practical	1	
1	Viva Voce I 8 II	15+15=30	i
2	Practical File & Class Work	20	
3	Attendance	10	H
4	End Semester	40	1
	Total	100	
7.7			

#### C. Evaluation Process for Dissertation/Internship/Project work

1 The Dissertation/Internship/Project Work Part-L

End semester evaluation by the Committee' on the basis of seminar/vivavoce/report submitted by the candidate - out of 100 marks. To be completed by the end of third semester

- \* Committee comprising the following members
  - ✓ HOD or his/her nominee.
  - Dissertation Supervisor (and Co-Supervisor).
  - One faculty member as expert preferably from the same specialization.
- 2 After the submission of Dissertation/Internship/Project report, the final examination is to be conducted in the respective departments. The Dissertation/Internship/Project-work Part-il shall be evaluated through presentation cum viva-voce examination by a committee comprising of the following.
  - HOD or his/her nominee
    - ✓ Dissertation Supervisor (and/or Co-Supervisor)
    - One external expert appointed by the Department

The evaluation will be as per the following criterion

- a) Final Evaluation Components (Maximum 70 marks)
  - 1) Content of Report (Maximum 40 marks)
  - 2) Presentation (Maximum 20 marks)
  - Answer to Examiner's queries (Maximum 10 marks)
- b) Marks for paper presented in Conferences organized at IITs / NITs / IIITs / IISc / IISERs / Conferences sponsored by reputed professional societies (7 marks per paper)

01

Outstanding work done during internship duly certified by industrial supervisor

(Maximum 14 marks for entire B component)

c) Marks for paper in non-paid paper in peer reviewed journals in Scopus / SCI / SCIE. (30 marks per paper)

10

Palent Accepted (30 marks per patent)

. 0

M.1ecn Besi Project Award given by recognized agency (30 marks) (Maximum 30 marks for entire C component)

Final Evaluation: The final grade of the fourth semester will be evaluated based on grand total of marks (a+b+c)/100 as per the institute norms.

Note: In case, the total marks (a+b+c) exceeds 100 it will be counted as 100.

Page 2 of 3

#### D. Internship Rules:

- MTech Dissertation Supervisors will be allocated by the end of November in the first semester
- Consent from the respective MTech Dissertation Supervisor by the students through HoD will be mandatory for the students to participate in the internship drive organized by T&P cell of the institute. All such expressions of interest should reach T&P cell by 15th of December positively.
- For the companies which are offering internship for 7-12 months it will be mandatory for the industry to provide co-supervisor/project manager.
- For the companies offering internship upto six months, there will be no cosupervisor/project manager from industry. Such candidates are not covered under internship evaluation.
- Dean (Academic) will approve Internship cases only on the recommendation of Dean (I&IR) and the candidate can join the concerned industry only after receiving the approval of Dean (Acad.).
- Candidate is required to appear for viva voce/presentation as and when required by the parent department.
- All publications will be in the names of candidate and supervisor(s) during internship
- 8 Copyright, trademark and patents during internship will be jointly in the names of NIT Kurukshetra and concerned industry
- No scholarships will be provided by the institute during internship period, if it is paid
- Internship/Project work in reputed Academic Institutions / R&D organizations will be allowed only after recommendation of the concerned supervisor and HoD of the respective department.
- At the end of internship, the candidate is required to submit hinal report duly signed by concerned supervisor(s) along with no dues certificate from the concerned industry.
- Internal and end semester examinations will be conducted in the institute as per the institute rules

(Gulshan Sachdeva)

(Gian Bhushan)

(Ashwani Kumar)

(Mavank Dave)

(K.S. Sandhul

Page 3 of 3

#### S 47.08 To consider the proposal for establishment of seven (07) RECK-71 Alumni Scholarships.

A request from President, NIT Kurukshetra, Alumni Association (NITKAA) vide letter no. NITKAA/2022/139 dated June 04, 2022 has been received regarding establishment of seven (07) RECK-71 Alumni Scholarships. During the Golden Jubilee Celebrations of 1971-76 batch, it was decided to establish seven scholarships of Rs. 20,000/- and a certificate each to be given to the economically weaker and top ranked students of B.Tech. 3rd semester from all seven branches, based upon their first year results. These scholarships will be effective from the academic session 2022-23. This proposal has been undertaken by NITKAA in order to provide the maximum number of scholarships which in turn will help in enhancing the ranking of the Institute.

For the purpose, a financial contribution of Rs. 25 lacs have been made by 1971-76 batch and the amount will be kept in the form of FD in the NITKAA bank account. Annual interest accrued from the FD shall be utilized for giving away the scholarships and the certificate.

The relevant documents are attached as Annexure S 47.08 from pages

1 to 98.

CON 13

The Senate may consider and decide.



No. Acad mwcood/22/2330

NIT Kurukshetra Alumni Association (NITKAA)

[A society vide Registration No. 06-004-2016-01269]
National Institute of Technology Kurukshetra
Kurukshetra | 136119 | Haryana | INDIA

■ nitkaaoffice@gmail.com □+91 1744 233304 (O)

#### Patron

Prof BV Ramana Reddy Director | NIT Kurukshetra

#### President

Prof Pankaj Chandna Batch | 1984-89

#### Vice-President

Er Javed Aslam Khan Batch | 1982-87

#### Secretary

Er Nikesh Jain Batch | 1985-89

#### Joint Secretary

Er Amit Garg Batch | 1990-94

#### Treasurer

Er Madhur Goyal Batch | 1993-97

#### Executive Members

Er Anil Kumar Khosla Batch | 1968-73

Er Vipin Rai Sardana Batch | 1986-90

Er Suveer Kumar Gupta Batch | 1992-96

Er Tirthankar Goyal Batch | 1993-97

Er Tarun Dua Batch | 1997-01

Er Tushar Goyal Batch | 2006-10 NITKAA/2022/ 139

June 04, 2022

#### Subject: Establishment of seven [07] RECK-71 Alumni Scholarships regarding:

The alumni association has taken a paradigm shift over the years in terms of organizing/facilitating Batch alumni meets. Conquering upon the COVID 19 Pandemic, the association recently organized the golden jubilee celebrations of 1971-76 batch in the institute campus. During the celebrations, the batch made a financial contribution of Rs 25 lakh [kept in the form of FD] to be utilized for the benefit of students of the institute. A committee comprising of members from 1971-76 Batch under the chairmanship of the President was constituted by the Executive Committee [EC] to take the decision about the utilization of funds.

After two online interactions among the committee members, it has been decided to propose to establish seven [07] scholarships of Rs. 20,000 and a certificate each; to be given to the economically weaker and top ranked students from all seven [07] branches of 3<sup>rd</sup> Semester, based upon their first-year results and to be made effective from academic session 2022- 23. Appropriate to mention that the annual interest accrued from the FD shall be utilized for giving away the Scholarships and the Certificate. The total requirement of funds for scholarship is Rs. 1,40,000/- per year and any shortfall in the mentioned amount will be fulfilled by the association. Pertinent to mention that this proposal has been undertaken in order to provide the maximum number of scholarships which in turn help in enhancing the ranking of the institute.

On behalf of the Alumni Association, we would like to make a request to the authorities to establish the afore-mentioned scholarships as per the institute procedures effective from academic session 2022-23.

Submitted for kind consideration

- Aliverty

Nikesh Jain

Secretary

nt TA

process as pur

or the

portocol

Through President

1 12/1

和加

Ms-Medly

A request from President, NIT Kurukshetra, Alumni Association (NITKAA) vide letter no. NITKAA/2022/139 dated June 04, 2022 has been received regarding establishment of seven (07) RECK-71 Alumni Scholarships. During the Golden Jubilee Celebrations of 1971-76 batch, it was decided by a Committee to propose to establish seven scholarships of Rs. 20,000/- and certificate each; to be given to the economically weaker and top ranked students of B. Tech. 3rd semester from all seven branches, based upon their first year results. These scholarships will be effective from the academic session 2022-23. This proposal has been undertaken in order to provide the maximum number of scholarship which in turn help in enhancing the ranking of the Institute.

In light of above, it is requested to allow this matter to be taken up in the next Senate.

Submitted for kind consideration and approval please.

Dean (Academ)

DIRECTOR

# S 47. 09 To consider and decide the proposal for starting M.Tech. program in Defence Technologies from the Academic Session 2023-24.

NIT Kurukshetra has recently signed an MoU with Defence Research and Development Organisation (DRDO). The DRDO has been pursuing basic and applied research in collaboration with academia and has been funding the research projects through various mechanisms to engage academia under its Grant-in-aid scheme. DRDO has established very good connect with faculties and researchers of academia through research projects. So far the engineering education in country do not have M.Tech. courses, adapted to impart knowledge related to defence and security applications. Defence Institute of Advanced Technology (DIAT) Pune, College of Military Engg. (CME) Pune and select Institutes and industries have been mainly providing required specialized knowledge related to defence and security to the students and armed forces personnel.

DRDO has collaborated with AICTE for conducting the regular M.Tech. course in Defence Technologies in the following six specialized streams:

- Combat Vehicle Engineering
- ii. Aerospace Technology
- iii. Naval Technology
- iv. Communication Systems & Sensors
- v. Directed Energy Technology
- vi. High Energy Materials Technology

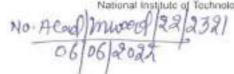
The M.Tech. in defence technology courses have been designed to produce post graduates who will have the necessary theoretical and experimental knowledge, skill and aptitude in various defence technologies areas and pursue them to carry out R&D in defence so that they can get recruited in the various defence laboratories, defence public sector & private industries, ordnance factories and other similar sectors of the economy at national and international level.

The syllabi for M.Tech. in Defence Technology and guidelines have already been approved by AICTE in the year 2021-22 which are enclosed as Annexure S 47.09 from pages <u>101</u> to <u>1.11</u>.

RAM 13

The Senate may consider and decide.





Prof. B V R Reddy Director <director@nitkkr.ac.in>

Fri, May 27, 2022 at 9:54 AM

# MTech Program in Defence Technologies

1 message

KAILASH KUMAR PATHAK <directorftm.hqr@gov.in>

To: director@nitkkr.ac.in

Cc: Haribabu Srivastava <dglm.hgr@gov.in>, NEENA SATTi <neenasatti.hgr@gov.in>

Dear sir.

Congratulations to you and NIT team for signing MoU with DRDO. It was nice to interact with you during signing of MoU at DRDO

As per your discussion with DGTM for starting MTech Program in Defence Technologies in the academic session 2022-23 of NIT Kurukshetra, I am attaching the Syllabi of MTech Program for your perusal please.

Request feel free to contact DFTM, DRDO HQrs for any clarification / information.

With Regards.

Kailash Kumar Pathak Director Directorate of Futuristic Technology Management (DFTM) DRDO Bhawan, Ralaji Marg New Oethi - 110011 Phone: 011 23007330/29



- M. Tech Syllabi Final.pdf 13124K

Harriva La Serala

DA to Dean (Acra)

101





2021-2022

Directorate of Futuristic Technology Management (DFTM)

Director General Technology Management (DG TM)

Defence Research & Development Organization (DRDO)

Ministry Of Defence

Government of India

New Delhi

Approved by
All India Council for Technical Education (AICTE)
New Delhi





# M. Tech. (Defence Technology)

#### 1. Introduction

DRDO has been pursuing basic and applied research in collaboration with academia, since last six decades. DRDO has been funding the research projects through various mechanisms to engage academia under its Grant-in-Aid scheme. In last five years, DRDO has given impetus to create Research Eco-system for Directed Research by establishing the Centres of Excellence within premier institutes and universities. DRDO is continuously taking efforts towards expanding the research base by engaging faculties, researchers, scientists, start-ups and industries for developing targeted emerging and futuristic technologies to accelerate the technological self-reliance in defence and security of the nation. DRDO has collaborated with AICTE for conducting the Regular M.Tech Course in Defence Technologies having 6 specialized streams and B.Tech (Elective Courses) in collaboration with All India Council for Technical Education (AICTE). The M.Tech. courses would infuse interest in students and motivate them to pursue their career in research and development for defence and security to join defence, PSUs and private defence industries.

# Need for M.Tech. (Defence Technology)

DRDO has established very good connect with faculties and researchers of academia through research projects. So far the engineering education in the country do not have M.Tech courses, adapted to impart knowledge related to defence and security applications. Defence Institute of Advanced Technology (DIAT) Pune, CME Pune and select institutes and industries have been mainly providing required specialized knowledge related to defence and s ecurity to the students and armed forces personnel.

The M.Tech. in defence technology courses has been designed to produce Post Graduates who will have the necessary theoretical & experimental knowledge, skill and aptitude in various defence technologies areas and pursue them to carry out R&D in defence. The students will be provided valuable exposure & knowledge for various state of the art defence systems and contemporary technologies through class lectures & main thesis work. During the program, the students would be given valuable exposure by carrying out their main thesis work in DRDO labs, Defence PSUs & Private Defence Industries. This collaborative effort of DRDO, AICTE and Industries will provide required knowledge to the students and create job opportunities for them. The academic-industry trained workforce will immensely contribute in realizing GOI vision of Atmanirbhar Bharat.

#### 3. Program Objectives

- To develop Post Graduates who have the necessary theoretical & experimental knowledge, skill
  and aptitude in defence technologies and systems and can get recruited in the various defence
  laboratories, defence public sector & private industries, ordnance factories and other similar
  sectors of the economy at national and international level.
- To contrive skilled manpower in the field of defence technologies.
- To enhance students' interaction with the senior, experienced manpower engaged in defence labs and defence industries and have real time knowledge / experience in the technology development, technology deployment and defence systems.
- To acquaint students for the needs of technologies related to defence & security of nation and to create zeal among students to pursue research and development for defence technologies.





# 4. Program Outcomes

S. No.	Program Outcome	Attributes			
PO-01	PO-01 Acquire technical competence, comprehensive knowledge and understanding the methodologies and technologies associated with land, air & naval defence systems. Apply knowledge to identify, formulate and analyse complex engineering problems.				
PO-02	Having an ability to apply knowledge of science, mathematics, engineering & technology for development of defence technologies.	Critical Thinking			
PO-03	PO-03 Having an ability to design a component, subsystem or a system applying all the relevant standards and with realistic constraints, including operational and environmental.				
PO-04	Acquire the skills for uses of contemporary techniques, resources and modern engineering and IT tools				
PO-05	An ability to identify, investigate, understand and analyse complex problems, apply creativity, carry out research /investigation and development work to solve practical problems related to defence technological issues.	Design, Development & Solutions			
PO-06 Ability to communicate effectively in both oral and written contexts in the form of technical papers, project reports, design documents and seminar presentations.		Communication			
PO-07	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.	Individual &Team Work			

# 5. Program Structure

It is a 4 semester program with total 80 credits. It is having 6 specializations, as regard to the specializations, semester -1 will have common curriculum and semester 2 curriculum will be varied as per the specialization. Semester 3 & 4 includes dissertation and industrial training. The M.Tech. in Defence Technology will be having following specializations:

S. No.	Specialization
1.	Combat Vehicle Engineering
2.	Aerospace Technology
3.	Naval Technology
4.	Communication Systems & Sensors
5.	Directed Energy Technology
6.	High Energy Materials Technology

- Semester-1 courses will be same for all specializations.
- Semester -2 courses will be as per the selected specialization.

# 6. Syllabi

(under AICTE Universities)

T: Tutorial; L: Lecture; P: Practical





# Semester - 1

S. No.	Course Code	urse Code Course of study and scheme of examination		M.Tech	Branch Defence Technology	
		e de la composition della comp	Pe	eriods/We	ek	Total Credits
		Compulsory Courses	L	T	P	
1.	DT-01-01	Systems and warfare Platforms	4			4
2.	DT-01-02	Warfare Simulations & Strategies	4		-	4
3.	DT-01-03	Advanced Engineering Mathematics	4			4
4.	DT-01-L01	Systems and Platforms Lab	-		2	2
5.	DT-01-L02	Warfare Simulations & Strategies Lab	-	-	2	2
		Elective Courses				
6.		Elective 1	3	-	-	3
7.		Elective 2	3	24		3
8.		Seminar		4	1	1
		Total credits				23

# Semester -1 Elective Courses

 Students are expected to select the Elective-I course of their choice, provided that at least i group of 7 students should opt for the similar elective course.

S. No.	Course Code	Course of study and scheme of examination	M.Tech Semester-1 Periods/Week				
		Elective 1	L	T	P	Total Credits	
1,	DT-EL1-01	Rockets & Missiles Fundamentals	3	-	83	3	
2.	DT-EL1-02	Advanced Thermal Engineering	3		₩.	3	
3.	DT-EL1-03	Numerical methods for science & engineering	3			3	
4.	DT-EL1-04	Communication Technology	3		-	3	
5.	DT-EL1-05	Advanced Mechanical Engineering	3		-	3	

5. No.	Course Code	Course of study and scheme of examination			M.Tech mester-	1	
		Elective 2	Periods/Week				
			L	T	Р	Total Credits	
1.	DT-EL2-01	Autonomy and Navigation Technology	3			3	
2.	DT-EL2-02	Optimization theory & applications	3	2.	-	3	
3.	DT-EL2-03	Military Electronics System Engineering	3	15	-	3	
4.	DT-EL2-04	System Engineering & Analysis	3	£3	-	3	





# Semester - 2: Main Stream Defence Technology with following six specializations

S. No.	Main Stream Defence Technology
1.	Combat Vehicle Engineering
2.	Aerospace Technology
3.	Naval Technology
4.	Communication Systems & Sensors
5.	Directed Energy Technology
6.	High Energy Materials Technology

# 1. Combat Vehicle Engineering

S. No.	Course Code	Course of study and scheme of examination	,	M.Tech Semester-	2	Branch Defence Technology
		Compulsory Courses	Pe	eriods/We	ek	Total Credits
		Combat Vehicle Engineering	L	T	P	
1.	DT-CVE-01	Combat Vehicle Dynamics	4	2	+ .	4
2.	DT-CVE-02	Combat System Engineering	4	-	-	4
3.	DT-CVE-03	Test & Evaluation of Weapon System	4	4	- 8	4
4.	DT-CVE-L01	Combat Vehicle Dynamics Lab	4	-	2	2
5.	DT-CVE-L02	Combat System Engineering Lab	54	-	2	2
		Elective Courses				
6.		Elective 1	3	2.	1	3
7.		Elective 2	3	-	1	3
8.		Seminar			1	1
		Total credits				23

#### 2. Aerospace Technology

S. No.	Course Code	ourse Code Course of study and scheme of examination		M.Tech Semester-	Branch Defence Technology	
		Compulsory Courses	Pe	eriods/We	ek	Total Credits
		Aerospace Technology	L	T	P	
1.	DT-AT-01	Aerospace System Configuration, Design & Simulation	4			4
2	DT-AT-02	Guidance & control	4	-	2	4
3.	DT-AT-03	Aerospace Propulsion	4		14	4
4.	DT-AT-L01	Aerospace System Configuration, Design & Simulation Lab	8	٠	2	2
5.	DT-AT-L02	Guidance & control Lab	£2.	- 1	2	2
		Elective Courses				
6.		Elective 1	3		- 2	3
7.		Elective 2	3	47		3
8.		Seminar	-		1	1
		Total credits		9		23





# 3. Naval Technology

S. No.	Course Code	Course of study and scheme of examination	1	M.Tech Semester-	2	Branch Defence Technology
		Compulsory Courses	Pe	eriods/We	ek	Total Credits
		Naval Technology	L	T	P	
1,	DT-NT-01	Naval combat system engineering	4	-	-	4
2.	DT-NT-02	Guidance, Navigation, and Control of Marine Systems	4	1 2	3	4
3.	DT-NT-03	Marine Propulsion	4	14	(4)	4
4.	DT-NT-L01	Naval combat system engineering Lab	-		2	2
5.	DT-NT-L02	Guidance, Navigation, and Control of Marine Systems Lab	a .	-	2	2
		Elective Courses				
6.		Elective 1	3	-		3
7.		Elective 2	3	*	8	3
В.		Seminar	19	-	1	1
		Total credits				23

# 4. Communication Systems & Sensors

S. No.	Course Code	Code Course of study and scheme of examination		M.Tech Semester-	Branch Defence Technology	
		Compulsory Courses	Pe	eriods/We	ek	Total Credits
		Communication Systems & Sensors	L.	T	P	
1.	DT-CSS-01	Radar Technologies	4	1 1		4
2.	DT-CSS-02	Digital & satellite Communication and Navigation from Space	4	ş:		4
3.	DT-CSS-03	Tactical battlefield Communication & Electronic Warfare	4	+9	(*)	4
4.	DT-CSS-L01	Radar Technologies Lab	-	*:	2	2
5.	DT-CSS-L02	Digital & satellite Communication and Navigation from Space Lab	*	*	2	2
- 0		Elective Courses				
6.		Elective 1	3	-	-	3
7.		Elective 2	3			3
8.		Seminar	-	3-	1	1
		Total credits				23





# 5. Directed Energy Technology

S. No.	Course Code	Course Code Course of study and scheme of examination	5	M.Tech emester-	Branch Defence Technology	
		Compulsory Courses	Pe	riods/We	ek	Total Credits
		Directed Energy Technology	L	T	Р	
1.	DT-DET-01	Directed Energy Sources (Lasers, Microwave)	4		-	4
2.	DT-DET-02	Beam Control Technology, Target acquisition, Beam Pointing & Tracking	4	-	-	4
3.	DT-DET-03	Directed Energy Weapons (DEW) System Engineering	4		-	4
4.	DT-DET-L01	Directed Energy Sources (Lasers, Microwave) Lab		-	2	2
5.	DT-DET-L02	Beam Control Technology, Target acquisition, Beam Pointing & Tracking Lab	-	-	2	2
		Elective Courses	Ü			
6.		Elective 1	3			3
7.		Elective 2	3	138		3
8.		Seminar	- 1	18	1	1
		Total credits				23

# 6. High Energy Materials Technology

S. No.	Course Code	Course of study and scheme of examination	s	M.Tech emester-	Branch Defence Technology	
		Compulsory Courses	Pe	riods/We	ek	Total Credits
		High Energy Materials Technology	L	T	Р	
1.	DT-HEM-01	High Energy Materials Modeling & Simulation	4	=		4
2.	DT-HEM-02	Munitions and Target Response	4			4
3.	DT-HEM-03	Manufacturing and Materials Properties of Explosives	4	5	33	4
4.	DT-HEM-L01	High Energy Materials Modeling & Simulation Lab	15	8	2	2
5.	DT-HEM-LO2	Munitions and Target Response Lab	2	2	2	2
		Elective Courses				
6.		Elective 1	3	-	-	3
7.		Elective 2	3		-	3
8.		Seminar		-	1	1
		Total credits				23





# Elective Courses offered for Semester 2

 Students are expected to select the Elective-I course of their choice, provided that at least group of 7 students should opt for the similar elective course.

S. No.	Course Code	ourse Code Course of study and scheme of examination		M.Tech Semester-2			
			Periods/Week				
		Elective 1 (for all Specializations )	L	T	P	Total Credi	
1.	DT-EL3-01	Robotics (MSS, MCC)	3	+	-	3	
2,	DT-EL3-02	EMI/EMC in Military Systems	3		48	3	
3.	DT-EL3-03	Defence Electro-Optics and Imaging Systems	3			3	
4.	DT-EL3-04	Structural Dynamics and Aero-elasticity	3	-		3	
5.	DT-EL3-05	Safety, Health & Hazard Management	3	4		3	
6.	DT-EL3-06	Fundamental of telemetry, telecomm and transponder	3	-	-	3	
7.	DT-EL3-07	Jamming and ECM/ECCM technologies	3	137		3	
8.	DT-EL3-08	Software defined Radios	3			3	
9.	DT-EL3-09	Advanced Lightweight and Composite Structures	3		*	3	
10.	DT-EL3-10	Test methodologies for DEW systems (Lasers & Microwave)	3	8	30	3	
11.	DT-EL3-11	Advanced Analytical Techniques / Lab testing	3	e e		3	
12.	DT-EL3-12	Sonar System Engineering	3	-	-	3	

S. No.	Course Code	Course Code Course of study and scheme of examination		M.Tech Semester-2			
			Periods/Week				
		Elective 2 (for all Specializations )	L	T	P	Total Cred	
1.	DT-EL4-01	Unmanned Aerial Vehicle Design	3		-	3	
2.	DT-EL4-02	Naval Ocean Analysis and Prediction	3	-	-	3	
3.	DT-EL4-03	Modeling & simulation of Laser Matter Interaction	3	-	8	3	
4.	DT-EL4-04	Computational Aerodynamics	3	-		3	
5.	DT-EL4-05	Launch Vehicle Design & Analysis	3	*	14	3	
6.	DT-EL4-06	Acquisition, Tracking & Pointing Technology	3		~	3	
7.	DT-EL4-07	Data acquisition, tracking & post flight analysis	3	8	1-4	3	
8.	DT-EL4-08	Air independent propulsion & batteries	3			3	
9.	DT-EL4-09	Advanced digital modulation technologies & standards	3	3.		3	
10.	DT-EL4-10	Trajectories modeling & simulation	3	2.		3	
11.	DT-EL4-11	Sensor Technology	3	22	-	3	





#### Semester - 3

S. No.	Course	Credit
1.	Project Dissertation-Phase 1	10
2.	Seminar/Industrial training	4
	Total credits	14

#### Semester - 4

S. No.	Course	Credit
1.	Project Dissertation Phase-2	20
	Total credits	20

#### 7. Procedure to approach DRDO Labs

Prospective institute may contact the DRDO Lab near its vicinity for conducting this program, e.g. prospective institute located in Hyderabad may seek help from DRDO Labs located inside or near the vicinity of Hyderabad. List of DRDO Labs is provided in Annexure A.

# Eligibility criteria

Those who have pursued under graduation in following disciplines are eligible for taking up the M.Tech. Defence Technology courses:

- Aerospace Engineering
- 2) Aeronautical engineering
- Applied Electronics and Communication Engineering
- Applied Electronics and Instrumentation Engineering
- 5) Chemical Technology
- 6) Chemical engineering
- 7) Computer Science & Engineering
- Computer and Communication Engineering
- 9) Computer Engineering
- Computer Engineering and Applications
- 11) Computer Networking
- Computer Science and Information Technology
- 13) Computer Science and Technology
- 14) Computer Technology
- 15) Electrical and Computer Engineering
- 16) Electrical and Electronics Engineering
- Electrical and Instrumentation Engineering
- 18) Electrical and Power Engineering.

- 19) Electrical Engineering
- 20) Electronics engineering
- Electrical, Electronics and Power Engineering
- Electronics and Communication engineering
- 23) Instrumentation engineering
- Electronics, Instrumentation and Control Engineering
- 25) Electronics, Science and Engineering
- 26) Electronics and Computer Engineering
- Electronics and Communication Engineering
- 28) Electronics and Computer Science
- 29) Electronics and Control Systems
- 30) Electronics and Power Engineering
- 31) Electronics and Telecommunication
- Electronics, Instruments and Control Engineering
- 33) Electronics System Engineering
- 34) Instrumentation and Electronics
- 35) Instrumentation Engineering
- 36) Marine Engineering
- 37) Marine Technology





- Mechanical and Automation Engineering
- 39) Mechatronics Engineering
- 40) Mechanical engineering
- 41) Metallurgical and Materials Engineering
- 42) Military engineering

- 43) Optics and Opto-electronics
- 44) Power Electronics Engineering
- 45) Radio, Physics and Electronics
- 46) Software Engineering
- 47) Structural Engineering
- 48) Telecommunication Engineering

#### 9. Guidelines

- To begin the courses, it will be preferred to have institutes / universities in vicinity of DRDO/ PSU/private defence industries for effective conduction of courses.
- ii. Keeping in view the uniqueness of the courses of this program, each course can be conducted on sharing basis, the faculty(s) from prospective institute / university can share the course to be conducted with the superannuated / working scientists from the DRDO labs located in the vicinity of the institute. On request by the institutions, the experts/ scientists for conducting the respective courses will be made available by DRDO lab provided that the prospective institution should plan the teaching assignment well in advance and communicate to the nearby DRDO lab for the meaningful. The institutes / university should cater for remuneration / funding to the mentioned lecturers for course activities as per university rules.
- The laboratory work mentioned in semester 1 & 2 can be held at respective DRDO labs / PSU/ private defence industries located in the vicinity on demand from the institution / university.
- There will be mentor from academic institute / university as well as from DRDO lab / Industries for conducting online/offline lab experiments.
- v. M. Tech. Project phase 1& 2 may be done in respective DRDO labs, DRDO established Center of Excellence, DIAT Pune, PSUs and private defence industries. As regard M.Tech dissertation based upon the topic of dissertation, the respective students will be placed appropriately to the various respective labs located all over countries.
- vi. The model course structure has been provided for reference. The prospective institutions / universities can get it approved from the concerned bodies. Also the prospective institutions / universities may take approval of DRDO scientist to teach the courses on sharing basis.
- vii. The prospective institution / universities can conduct the examination appropriately for theory, practical courses and dissertation. The dissertation examination can be conducted at DRDO lab as per the requirement of the dissertation topic, in case the developed product / system can not be taken out from the DRDO lab.
- The list of DRDO superannuated scientists along with contact details, willing to contribute for this program has been provided.
- ix. Classes may be conducted online as well as offline as per need.

# S 47.10 To consider the report of the Committee on exploring 'Relative Grading system'.

As per Senate decision in its 36th meeting held on 21.9.2019 vide item no. S 36.07, the following Committee was constituted to explore the adoption of 'Relative Grading System':

1.	Prof. Mayank Dave, Prof. Computer Engg.	Chairman
2.	Prof. Ashwani Sharma, Prof. Elect. Engg.	Member
3.	Prof. Ajai Jain, Prof. Mech. Engg.	Member
4.	Dr. A.S.V. Ravi Kanth, the then HoD (Maths)	Member
5.	Dr. J.K. Kapoor, the then Prof. I/C (Acad.)	Member

Now, the Committee has submitted its report which is enclosed as Annexure S 47.10 from pages 113 to 114.

CAM LEZ

The Senate may consider and decide.

# Report of the Committee on Exploring 'Relative Grading System'

This is with reference to the committee constituted vide letter Acad/2019/1135 dated 23.10.19 for exploring the adoption of 'Relative Grading System'. The committee had several meetings and discussion rounds.

#### Observations:

- In several IITs / NITs special emphasis is on the student registration process. Its main highlights are:
  - A student has to first take part in pre-registration that shows his intent to take a particular course. On the basis of pre-registration and certain perquisites, it is decided whether the student will be allowed a particular course. Only after the preregistration, the actual next semester registration is done.
  - b. There are institute core courses, program core courses and program elective course. Requisite credits must be achieved in such courses.
  - c. If a student fails (in overall %), he has to appear in Major again in the exam held (called Major-retest) in the first week of next semester by the course coordinator.
  - d. If a student again fails in the core course, the course must be repeated. It is not year loss. Only thing is that he has to sit in the classes of that core course again. He may continue his other studies. However, if this core course is a prerequisite for other courses, then this core course must be passed first.
  - e. It is not necessary to reappear in an elective course. A student may take some other elective some other time and earn the credits.
  - f Each program of study has total credits to be earned. A student can earn total credits by taking different electives but core courses are fixed. However, a student must earn minimum number of credits from Departmental electives and non-departmental electives separately.
  - g. It is observed that there is lower and upper limit on the credits that may be earned in a given semester.
  - h. A student can add/drop/withdraw from a registered course before Minor exam or a pre-notified date as per documented guidelines. A course taken by a student may change to audit upon request, if requested before a certain last date.
  - Slot-wise time table is required for providing flexibility to students for opting various
  - j. There are clear and detailed guidelines in every Institute regarding registration process.
- 2. There is DUGC (Department UG Committee) that also does the moderation (and may override coordinator) apart from other functions. Likewise, there are DPCC and other committees too. The well documented roles of each committee, course coordinator, faculty advisor etc. are in place.
- In IIT Roorkee, for class strength smaller than 30, absolute grading may be followed otherwise for class strength more than 30 relative grading is followed. (Default is relative grading in most institutes) Don't post of the marting of the land

- The cut-off for deciding different various letter grades (A+, A, B ...) are decided by the course coordinator and then announced in the first lecture and notified to all and sent to various stakeholders before the classes begin.
- Different courses may have different cut-off criteria for various letter grades.
- Highest letter grade has some <u>minimum % marks</u>, which is same across the Institute (80% in IITD, 91% in IIT Roorkee, 70% in NIT Surathkal) i.e. course coordinator cannot award A+ below this cut-off to any student. This bar may be moved up.
- Lowest Pass grade i.e. if a student has <u>35% marks</u> overall in a course in !!TD/liT Roorkee, then even in the relative grading system, the student cannot fail. The same is 20% in NIT Surathkal. A student cannot fail if he/she scores this much.
- The cut-off (range) for grades (% ranges) changes every year depending on result and again announced. IIT Roorkee has a suggested 'ranges' for grades using statistical method (also for absolute method).
- 9 It is also observed that it is not necessary to pass in mid-sem and end-sem components separately. The grade is decided on the total marks obtained.
- 10. There is only One Minor (mid-term exam), Two/Three Quizzes, One Major (end-term exam whose weightage may be in the range 30-70%). Plus, there are assignments and project components also as decided by the coordinator for the theory/lab course.
- 11. Minor and Major exams are mandatory for a student.
- Before major exam, a teacher could offer rescue assignments also.
- 13. There are no marks of attendance. However, every institute has some guidelines on attendance requirement. In some institutes, a teacher may announce count of attendance marks up to 5% within the total marks.
- Due to less attendance, fail grade may be awarded and so student will need improvement as a Major-retest.
- There is a lot flexibility and responsibility provided to each individual faculty within the well documented registration and curriculum framework.

#### Recommendations:

- The committee recommends that the Institute may opt for 'Relative Grading System'
  However, before switching over to relative grading system, the prerequisites for it such
  as DUGC/DPGC committee formulations and clearly laid down registration procedures,
  and other guidelines for faculty and students should be implemented and brought into
  practice.
- It is also required to carry out necessary changes and modifications in the current curriculum framework.
- Further, intensive faculty training is required for smooth transition from current system to relative grading system.

(JK Kapdor)

(ASV Ravi Kanth)

(Aiai Jain)

(Ashwani Sharma

(Mayank Dave)

Dean (Academic)

# S 47.11 To consider the Draft proposal submitted by the Committee to introduce Part-time M.Tech. in self-finance mode.

As per Senate decision in its 42<sup>rd</sup> meeting held on 7.4.2021 vide item no. 42.08, the following Committee was constituted to prepare a draft proposal to introduce Part-time M.Tech. in self-finance mode that includes feasibility of programme, essential qualifications, admission criteria, number of seats, duration of programme, fee structure, revenue generation etc.

<ol> <li>Prof. B. Setia, Civil Engg. Deptt.</li> </ol>	Chairman
<ol><li>Prof. L. Dewan, Elect. Engg. Deptt.</li></ol>	Member
<ol><li>Prof. U. Ghanekar, ECE Deptt.</li></ol>	Member
<ol><li>Prof. Ashutosh, MCA</li></ol>	Member
<ol><li>Prof. Ajai Jain, MED</li></ol>	Member Convenor

Later, Prof. K.S. Sandhu was nominated as Chairman of the Committee in place of Prof. Baldev Setia by the Competent Authority.

The Committee has submitted a draft proposal to introduce Part-time M.Tech. in self-finance mode. The draft proposal is enclosed as Annexure 47.11 from pages 116 to 119.

com by

The Senate may consider and decide.

No. Acad/mward 42/1589

Dated: 12-04-2022

Subject: Draft Proposal to Introduce Part Time M.Tech

With reference to notification Acad/2021/900 dated 12-08-2021 committee reconstituted for the preparation of draft proposal to introduce part time M.Tech in the institute is as:

1.	Prof. K.S.Sandhu, EED	Chairman
2.	Prof. L. Dewan, EED	Member
3.	Prof. U. Ghanekar, ECED	Member
4.	Prof Ashutosh, MCAD	Member
5.	Prof. Ajai Jain, MED	Member (Convener)

Previous committee under the chairmanship of Prof. Baldev Setia requested all departments/schools to give their suggestions for taking up such programs. However, Department of Electrical Engineering only responded positively to start such program. Response was subject to few conditions specifically the availability of faculty and supporting staff to run these programs.

Committee after having few meetings & with detailed discussions, prepared a general draft proposal as per Annexure-1.

( Ajai Jain)

(Ashutosh)

( U Ghanrekar)

I. Dewan)

(K S Sandhu)

Dean (Academic) for necessary action

may be

not sens

senate

125

) A to Denna Acas

#### Annexure 1

# Proposal for Part-Time M.Tech. Program

- Alm, beneficiaries, eligibility, Admission, rules and regulations
- · Duration, Curriculum structure/framework
- · Fee structure, faculty and supporting staff

#### AIM:

To enhance the technical knowledge of working professionals in the relevant fields.

## BENEFICARIES:

- Professionals from industry, research organizations, educational institutes etc.
- Almost all organizations within a radial distance of about 250 km.

#### ELIGIBILITY & OTHER CONDITIONS

- Applicant must be working in some industry/research organizations/reputed educational institutes.
- · Graduation in relevant filed with at least two years of experience.
- 60% marks in graduation or CGPA of 6.0 to the scale of 10.
- Programmes offered will run subject to availability of sufficient number of candidates in respective programme. Minimum number of students in a course should be 5 and maximum number as 20. Program should be of core branch.
- In case, if less number of candidates qualify for a particular programme of the department than the minimum required, then the candidates will have the option to switch to another M. Tech. programme based on their eligibility and subject to approval of competent authority.

#### ADMISSIONS:

Admission merit list to be prepared on the basis of weightage as below:

Weightage of marks/CGPA in graduation = out of 40 marks

:1 mark corresponding to 1% increase [only for the part of %age obtained which is in excess to 60%]

OT

: 10 marks corresponding to Junit increase of CGPA [only for the part of CGPA obtained which is in excess to 6.0]

Weightage of Experience =out of 60 marks

: 3 marks for each additional year of experience [only for the portion of experience attained which in excess to 2 years subject to max of 60 marks]

Note: Weightage on Pro-rata basis; In case of TIE merit to be decided on the basis of age.

Reservations: as per GOI guidelines

V &

of Sul lens

### Example:

Candidate	%age in qualifying exam(X)	total experience in years(Y)	weightage of marks(max 40) X-60	weightage of experience(max 60) (Y-2)*3	total marks
A	72	8	12	18	30
В	86	5	26	3	29
C	65	24	5	60	65
D	70	15	10	39	49

## RULES & REGULATIONS:

- Attendance and passing requirements, standards of instruction, examination and evaluation methods and other academic & other regulations for Part-Time MTech Programme will be same as for the corresponding regular programmes.
- · Examinations to be conducted along with regular students

#### DURATION & WORKING SLOTS:

Duration of Program: Three Years/Six Semesters extendable to maximum of 5 years.

# 1st semester to 4th semester

# Saturday:

First theory slot: 10 am to 1pm; Second theory slot: 2pm to 5pm

#### Sunday:

Theory slot: 8.30 am to 11.30 am; Lab/project slot: 12.30 pm to 3.30pm

(Concerned department will have the flexibility to fix up the slots in deciding the courses /lab/project/seminar etc)

# 5th semester to 6th semester

Students will be required to visit the institute on Saturday & Sunday for contacting their supervisors.

2

Jam

#### CURRICULUM STRUCTURE/FRAMEWORK:

					Credit
First semester	Core ( 3 credit)	DE (3 credit)	DE (3 credit)	Core lab (2credit)	11
Second semester	Core ( 3 credit)	DE(3 credit)	DE (3 credit)	Core lab (2credit)	11
Third semester	Core ( 3 credit)	DE(3 credit)	DE (3 credit)	Simulation lab(2 credit)	11
Fourth semester	Core ( 3 credit)	Open Elective(3)	Seminar(1 credit)		07
Fifth semester	Dissertation Part1 /Internship Part I			*Case Study/Field work No credit	14
Sixth semester	Dissertation/ internship				14
					Total 68

Total 68

# DE: Departmental Elective;

 Summer activity to be carried out in between the 4<sup>th</sup> and 5<sup>th</sup> semester, awards to be submitted in 5<sup>th</sup> semester.

#### FEE STRUCTURE:

- 60,000/- per semester; includes tuition fee, library fee and other academic facilities.
- Fee for other components will be same as charge from the students of regular M.Tech. Courses

## FACULTY & SUPPORTING STAFF:

Regular Faculty/ Guest Faculty (payment for additional load to regular faculty)

- Payment for theory course: Rs 1500 per contact hour/lump sum max =50000/-
- Payment for lab course: Rs 2500 per day/lump sum =30000/-
- Payment of Rs 10000 per semester for supervising one dissertation.

Payment to teaching supported Staff associated with lab & other supporting staff for additional load: Lump sum=20000/-

& 2 En min

# S 47.12 To consider the report of the Committee constituted to look into all issues related to plagiarism check report and software.

As per Senate decision in its 43<sup>rd</sup> meeting held on 16.6.2021 vide item no. S 43.07, the following Committee was constituted by the Competent Authority to look into all issues related to plagiarism check report and software.

1.	Prof. Baldev Setia, CED	Chairman
2.	Prof. Mahesh Pal, CED	Member
3.	Prof. A.K. Singh, CA	Member

4. Dr. J.K. Kapoor, the then Prof.I/C (Acad.) Member Secretary

Later, Prof. Brahmjit Singh, Professor, Electronics & Comm. Engg. Deptt. was nominated as Chairman of Committee in place of Prof. Baldev Setia by the Competent Authority.

Now, the Committee has submitted its report which is enclosed as Annexure S 47.12 from pages 121 to 122.

The Senate may consider and decide.

Dean (P60)/608 Dated: 18.05.2022

Subject: Plagiarism Check of M.Tech. Dissertation- regarding

Please find herewith enclosed the report of the designated committee on the matter mentioned under subject line.

2. It is also proposed to consider the same set of guidelines/norms for generating and acceptance of the similarity index report of the Ph.D. Thesis submitted by the students of Ph.D. Programme of NIT Kurukshetra.

You are requested to consider Sr. no. 2 as the agenda item for the ensuing senate meeting, if you deem it fit.

Thanking you,

(Brahmjit Singh) Dean (P&D)

Encl: As mentioned above

121

Dec (PED) 608

Dated: 05.05.2022

Subject: Minutes of the Meeting of the Committee under ref. No. Dean Acad/2022/499; Dt. 07.04.2022 regarding M.Tech. Dissertation plagiarism check held in the office of the Dean (P&D) on 05.05.2022 at 04.35 pm.

#### Present:

1,	Prof. Brahmjit Singh	Dean (P&D)	In Chair
2.	Prof. Mahesh Pal	Dean (R&C)	Member
3.	Prof. Ashutosh Kumar Singh	Head, Dept. of Comp. Appl.	Member

Prof. J K Kapoor Head, Dept. of Chemistry Member

The Plagiarism as defined in https://www.dictionary.com/ implies "an act or instance of using or closely imitating the language and thoughts of another author without authorization and the representation of that author's work as one's own, as by not crediting the original author".

The committee deliberated at length on the issue of plagiarism for the academic work and its seriousness in the ethical framework of the academia and research. The committee recommends the following guidelines /norms for checking the plagiarism through "Turnitin" web tool (available in the Institute) in the reports on M.Tech. Dissertation /Project Dissertation (MCA) /Project (MBA) submitted by the students of NIT Kurukshetra:

- 1. The Similarity Index (SI) < 20% with
  - Source exclusion threshold set at 8 words
- 2. The following components will be excluded for generating the SI report:
  - (i) References/Bibliographic materials
  - (ii) Quoted materials
  - (iii) The text/contents prior to the first chapter, that is, Title Page, Acknowledgments, Declaration, Certificate, Table of Contents, List of Figures, List of Tables, List of Symbols & Abbreviations, and Abstract
- 3. Author's own published articles will be excluded from the SI report.

The meeting ended with vote of thanks to the chair.

(J K Kapoor) (Ashutosh Kumar)

(Mahesh Pal)

(Brahmjit Singh)

Dean (Acad)

# S 47.13 To note the nomination of three educationists of repute as members on the Senate of the Institute.

As per Clause 14 (d) of NITs Act, 2007, the Senate of the Institute shall consist of three persons, one of whom shall be a woman, not being employee of the Institute to be nominated by Chairperson, Board of Governors, NIT, Kurukshetra in consultation with the Director of the Institute from amongst educationists of repute, one each from the field of science, engineering and humanities.

Accordingly the Hon'ble Chairperson (Acting) BoG and Director has been pleased to nominate the following educationists of repute on the Senate of the Institute w.e.f. 07.07.2022:-

 Prof. Vinod Kumar Professor, Electronics & Comm. Engg., National Institute of Technology, Hamirpur (HP)

(from the field of Engineering)

Prof. Prasad V. Bharatam
 Professor & Head,
 Deptt. of Medicinal Chemistry
 National Institute of Pharmaceutical
 Education and Research (NIPER),
 Mohali (Punjab)

(from the field of Science)

Prof. (Ms.) Manju Singh, (from the field of Humanities)
 Professor,
 Deptt. of Humanities & Social Sciences,
 Malaviya National Institute of Technology,
 Jaipur (Rajasthan)

The Senate may please note.

Is CARL

S 47.14 To Consider and approve the panel of 'Expert Nominee of Senate' from outside the Institute on the Selection Committees for recruitment of Academic Staff.

> As per Section 23 Clause 5(a) of the First Statutes of NITs, there is provision of one expert nominee of Senate from outside the Institute in the composition of Selection Committees for recruitment of Academic Staff. The Panel of expert nominees of the Senate from outside the Institute is to be nominated by the Senate.

> The earlier panel of 'expert nominee of the Senate' will expire on 04.09.2022.

> The revised panel of 'expert nominee of the Senate' from outside the Institute is being placed on the table before the Senate for consideration. The new panel of expert nominees of the Senate will be implemented after the approval of the Board.

> > les lay

The Senate may kindly consider and approve.