

### Academic Regulations and Guidelines for Ph.D./ M.Phil./M.S.

(Effective from the Academic Year 2015-2016)



### DIRECTORATE OF RESEARCH AND DEVELOPMENT

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD Kukatpally, Hyderabad – 500 085. Telangana State, INDIA Email: directorrnd@jntuh.ac.in Ph: 040-23152332, Fax: 040-23152331

Website: www.jntuh.ac.in



JNTUH College of Engineering Jagithyal, Telangana State



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### JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

Prof. A. Venugopal Reddy Vice-Chancellor



Kukatpally Hyderabad - 500 085 Telangana (India) Phone: 040-23156109 (O) Fax: 040-23156112 Email: vcjntu@jntuh.ac.in Website: www.jntuh.ac.in

### MESSAGE

I am happy to note that the R&D unit of JNTUH is bringing out this booklet of Academic regulations and guidelines. I complement the Director and Staff for their effort in detailing the various processes / stages involved in the research programmes and I am sure that will definitely help the students pursuing the research programmes.

JNTUH is the first technological university in the Country and today it is one of the largest affiliating Universities in the state of Telangana. There is an increase in demand for research programmes and the University is taking all measures to maintain the quality while providing the research environment on the campus.

I congratulate all the students who got admission in research programmes Ph.D. / M.Phil. / M.S. and I hope that they live up to the expectations with their academic and research excellence. I wish all the students meaningful stay on the campus and success in their future endeavour.

**VICE-CHANCELLOR** 

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### 1.0 INTRODUCTION

Jawaharlal Nehru Technological University Hyderabad (JNTUH) is focusing on research programmes on need-based technology and solutions for societal problems. Accordingly an independent Directorate of Research and Development (DRD) was established in the year 2005 to promote and monitor the research programmes of University. The DRD administers Ph.D./M.Phil/M.S. programmes in external and full time modes and monitors the research progress of the scholars.

The DRD coordinates with the Directorate of Admissions for selection and admission of research scholars, interfaces with Directorate of Evaluation for conduct of Pre-Ph.D. examinations and issue of provisional and original certificates, interacts with the constituent units of university for academic activities of research degrees and also with Directorate of University Foreign Relations for the students of foreign nationals. DRD conducts Research Review Meetings once in every six months to evaluate and monitor the progress of the scholars and conducts vivavoce examinations for the award of the Ph.D/M.Phil./M.S. degrees in the faculties of engineering, science & technology including pharmacy, management and humanities and social sciences.

Directorate of Research and Development initiates all necessary academic activities for monitoring and evaluation of candidates admitted for M.Phil, M.S. (by Research) and Ph.D. programmes in the following disciplines offered by the University. The list of subjects may vary from year to year.

SI.NO.	Faculty Name	Subject	
1.	ENGINEERING	Aeronautical Engineering	
		Chemical Engineering	
		Civil Engineering	
		Computer Science & Engineering	
		Electrical & Electronics Engineering	
		Electronics & Communication Engineering	
		Energy Systems	
		Industrial Engineering	
		Mechanical Engineering	
		Metallurgical Engineering	
		Transportation Engineering	
		Bio-technology	
2.	SCIENCE & TECHNOLOGY	Chemistry	
		Environmental Science & Technology	
		Earth & Atmospheric Sciences	
		Mathematics	
		Nano Science & Technology	
		Physics	
		Spatial Information Technology	
		Water Resources	
		Pharmaceutical Sciences	
		Food Technology	
3.	MANAGEMENT	Management Sciences	
4.	HUMANITIES AND SOCIAL	English	
	SCIENCES	Physical Education	

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#### 2.0 UNIVERSITY RESEARCH ADVISORY COMMITTEE

JNTUH has constituted University Research Advisory Committee (URAC) with Rector as Chairman and Director, R & D as Convener. Experts from outside reputed institutions along with internal senior members of the faculty will constitute the members of the committee. The members of the committee may be finalized by DRD with the approval of university time to time. The objectives of the URAC are:

- To identify thrust areas, funding agencies, guiding and advising the university to go forward in research front.
- To guide the departments to do research in thrust areas as identified by national and international research organisations.
- To identify gap areas in industry and to create the awareness for the sponsored and industrial research.
- To work as a bridge between university and industry with special reference to attract the projects so as to generate internal revenue.
- To work on any other research related activities as directed by the university etc.
- Any difference/discrepancy/issue may be placed before URAC for its recommendation to forward to JNTUH for necessary approvals.







### 3.0 DOCTORAL RESEARCH COMMITTEE (DRC)

The Department Research Committee (DRC) for each faculty shall be chaired by the Chairperson of Board of Studies (BoS) of that faculty. Head of the Department or Coordinator of the Centre, two senior members of the faculty having Ph.D. are the members of the DRC. The DRC will be formed by the Director, R & D, with the approval of the Vice-Chancellor.

- Head of the Department or Coordinator of Centre shall act as Convener. Out of two senior faculty members, one senior member shall be a subject specific expert. Every DRC member shall be an eligible Supervisor as per University Guidelines.
- In case of absence of Chairperson, Board of Studies / HOD or Coordinator of Centre, one of the two senior members of the faculty of department/centre shall act as Chairman / Convener of DRC. The panel of experts with specialization in each faculty shall be prepared and utilized while constituting DRC.
- Conduct of RRMs or Colloquiums or any other activity related to the evaluation of progress of Research Scholars shall be carried out in the respective departments by DRC under the control of Principal / Director. Head of the Department or Coordinator of Centre shall provide the required facilities. Scholar's presentation during RRMs shall be open to all.
- Every scholar has to successfully complete two RRMs with satisfactory report before colloquium.
- DRC shall conduct Colloquium within 4 weeks from the receipt of information from the Director, R&D. If the supervisor is not available for any reason, written communication must be sent to Director, R&D. In such case, Co-Supervisor's presence is mandatory.
- The DRC is empowered to accept the scholar's work for thesis submission or may advise him to revise and reappear with modifications. The DRC shall specify in writing, the reasons/remarks for revision, duly signed by all members.

Colloquium shall be an open defense for the scholar. DRC is not empowered to reject the research work of any scholar.

- Once the scholar applies for colloquium, the DRC approval for submission of thesis shall be completed within a maximum period of one year. A maximum of three attempts are permitted. In case of revision and reappearing for colloquium, the scholar shall reapply to Director, R&D after a minimum period of 2 months.
- After successful completion of Colloquium, the thesis should undergo anti-plagiarism check irrespective of the year of admission.
- The scholar shall submit the thesis within three months after the approval from the colloquium committee. The scholar will be exempted from paying yearly fee if thesis submission falls within this period, otherwise the scholar needs to pay the penalty as per University norms.
- Change of title of thesis shall be advised by DRC during colloquium, if necessary.
- In case of any discrepancy, the Scholar or Supervisor/Co-Supervisor can appeal to Registrar/URAC, with proper justification, against the decision of DRC, the decision of Vice-Chancellor is final.
- Departmental Research Committee will be nominated by Director, DRD to help and sort out research related issues.



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### 4.0 RESEARCH SUPERVISOR AND CO-SUPERVISOR

A Supervisor and/or Co-supervisor should have a Ph.D. degree from a reputed university with a minimum of five years teaching/research experience out of which two years after Ph.D. having publications in six refereed national/international journals and also presented two national/international conference papers for eligibility. Eight (8) members can be allotted for a single guidance (external & full-time) and eight (8) additional scholars for joint guidance (external & full-time). Director, R&D shall monitor and limit the maximum number of students that a supervisor can serve as a supervisor or co-supervisor.

A vacancy with the supervisor may be considered to have occurred only when a candidate working under him/her submits the thesis, or his/her registration is cancelled. During any one academic year, not more than two scholars may be permitted to register under the guidance as supervisor and not more than two scholars may be permitted as cosupervisor.

### 5.0 STUDENT CATEGORIES

There are seven types of student categories in the research programme. The seven types are based on the nature of the research, sponsorship and scholarship. All these students are also categorized as External or Full Time as the case may be.

Candidates who have been working for at least one year in well equipped Educational / Scientific / R&D / Industrial / Government organizations and engaged in Scientific / Technological / Engineering / Managerial activities, as the case may be, and possessing the minimum required qualifications, shall be deemed as external candidates. The seven categories are listed below

Category 1 : Candidates with JNTUH Fulltime Fellowship for Ph.D. (JFFP) (Full Time)



- Category 2: Candidates with Government fellowship awardees like TEQIP/QIP/FIP/CSIR/UGC/DST/DOE/etc. (Full Time)
- Category 3 : Candidates working in sponsored R&D projects (Project fellow) (Full Time)
- Category 4 : (I) Candidates who are Regular Faculty members of JNTUH (External)
  - (ii) Lecturers on contract basis in JNTUH
- Category 5 : Candidates under External Registration (External)
- Category 6 : Candidates under External Registration and having MOU with JNTUH (External)
- Category 7 : Candidates of Foreign Nationals (Full Time)



### 5.1 Category 1: JNTUH Full Time Fellowship for Ph.D (JFFP)

 Candidates admitted under Research Fellowship Programme of JNTUH are considered as Full-Time Research Scholars, these research scholars are required to work Full-Time in any Constituent Units of JNTUH for the stipulated duration on the research topic and they shall not be permitted to undertake any employment during that period. Full-time JNTUH funded research scholars are eligible for monthly fellowship of Rs. 25,000/- (Consolidated) for the first two





- Candidates selected under JFFP must execute a bond stating that they would refund the Fellowship amount received, in full, at the time of leaving the Institute (i) if they fail to submit their thesis within 6 years, (ii) if they discontinue the research work in between of the stipulated time.
- The University reserves the right to terminate the Fellowship of any candidate if the progress of research work is not satisfactory.
- Faculty members involved in active research may be considered for supervisorship for JFFP students. The decision of Hon'ble Vice Chancellor in allotting Research supervisors to a particular research scholar is final.
- The allocation of supervisors is not to be linked to the existing 8 + 8 formula for total number of scholars at any given point of time and limited to 2 + 2 formula per academic year for a faculty member. These JFFP seats are over and above the students of external registration and other category students.



- At any time, only one candidate will be allotted subject to a maximum of two full time scholars per faculty member in any given notification. The allotment is based on the (i) subject specificity (ii) seniority in the department and (iii) consent of a particular faculty member. However the decision of university is final.
- Head of Department / Centre in consultation with the respective supervisor will allot the academic work limited up to 10 hours per week to the full time research scholar under JFFP.
- JFFP fellowship will be Rs.25,000/- per month up to 2 years with a bi-annual review and the review will be conducted by a exclusive Doctoral Research Committee(DRC) to be constituted by DRD with the approval of Hon'ble Vice-Chancellor. The fellowship in the third year will be enhanced to Rs.30,000/- based on the performance and recommendation of DRC. If the performance is satisfactory, the scholar will be elevated as Senior Research Scholar (SRS). A contingency grant of Rs.10,000/- per year for the first two years and Rs.15,000/- in the third year will be disbursed. No additional funding towards attending seminars / conferences / workshops will be allowed under this contingency grant.
- The age limit for entry level under JFFP is upto 30 years for open category and for reservation (SC/ST) 33 years at the time of notification for admissions.
- The fellowship will be paid for a maximum period of 3 years or completion of Ph.D which ever is earlier. In case of any delay in completing the Ph.D within 3 years, the extension may be given based on recommendation of DRC with no financial commitment beyond three (3) years.
- In any circumstances there should not be any conversion from full time scholar to external / part time under JFFP programme. If the JFFP scholar desires to leave the Ph.D. fulltime fellowship without



completing Ph.D., he/she has to refund all monies received under JFFP scheme.

- The release of monthly fellowship will be based on the attendance / research performance as assessed by the research supervisor. A monthly progress report along with the attendance particulars may be submitted to R & D through proper channel.
- The research scholar should select the research project after due consultation with supervisor / DRC and collaborative industry partner, with the approval of URAC to be constituted by the University.
- If a situation arises where there is a conflict between Research Scholar and Supervisor / Co-Supervisor, the decision of University regarding Change of Supervisor / Co-Supervisor is final.
- The JFFP scholar is expected to publish research papers in reputed journals as defined by the University. The number of research papers in conferences and journals is 3 + 3 in a duration of 3 years. The list of journals will be provided by RAC and scholar is expected to attend / present his/her research work in Conference / Workshops / Seminars conducted in collaboration with reputed and pertinent professional societies.
- The scholars are required to actively involve in doing original research resulting in possible IPR.

# 5.2 Category 2: Candidates with Government Fellowship (Full Time)

 Candidates who are qualified at the UGC-CSIR/NET examination, awarded with a Research Fellowship (for a minimum of two years) by UGC/CSIR/ICMR/DBT/etc Government Organization may be exempted from JNTUH written test for Ph.D. admissions. However they should appear for the interview conducted by selection committee of JNTUH.

- The candidates with ICSSR/RGNF/MANF/NIN-JRF or SRF awarded by national level bodies/institutes having NET/APSET & Ph.D eligibility test qualification also are admitted directly to the Ph.D programme. However they should appear for the interview conducted by selection committee of JNTUH.
- All conditions including minimum qualifications for admission to research programmes prescribed for other categories of scholars would apply to these candidates as well.
- TEQIP students must attend JNTUH test followed by University Interview

## 5.3 Category 3: Candidates in sponsored R & D projects (Project Fellow).

- Applications from such candidates will be received twice a year, against the internal notification issued by Director, Admissions. Selection will be made as per the normal procedure of JNTUH.
- No scholarship or financial assistance be provided to such candidates from the university funds. The payment is the responsibilities of Principal Investigator of that project.





- The candidates must be qualified at any of the national tests conducted by CSIR / UGC / JNTUH eligibility test etc. and followed by interview by selection committee of the university.
- All conditions including minimum qualifications for admission to the Ph.D. program prescribed for other categories of scholars would apply to these candidates as well.

### 5.4 Category 4: Regular Faculty members of JNTUH.

- Members of teaching and non-teaching staff of JNTUH may be permitted to join the Ph.D. programme provided prior permission has been obtained from the university before applying for admission to the programme, if they satisfy all the conditions of eligibility.
- For admission to the Ph.D. programme, staff member must fulfil the prescribed norms at the qualifying examination.
- All common rules laid down in the Ph.D. regulations relating to course work, execution of research work and evaluation of research progress by DRC shall be applicable to all the staff members, when being enrolled.
- The staff members, who are permitted to join research programme, must pay the prescribed tuition, admission and registration fee as per University norms.
- A faculty member must hold a permanent post in the university.
- A member of non-teaching staff seeking permission to join the research programme must hold a permanent post in the institute and must have a standing of at least three years service in the post.
- The application for administrative permission to join a research programme by a member of non-teaching staff must be submitted through the Head of the Department / Centre / Section in-charge, as

the case may be. While submitting the application, he must give an undertaking that he will abide by all the rules and regulations of research programme of the university.

- Every application for permission under these rules shall be examined by Director R&D taking into account whether the proposal for joining the programme for which permission is sought, is out of genuine interest and ability.
- After the permission is granted he/she will submit his/her application on a prescribed form together with the prescribed admission-cumregistration fee. The minimum period to be spent in the research work by a member of non-teaching staff registered for the Ph.D. degree shall be 5 years. The maximum period admissible for completion of the work and submission of the thesis shall, however, remains to be eight years, as in the case of regular candidates.
- All conditions including minimum qualifications for admission to research programmes prescribed for other categories of scholars would apply to these candidates as well.

### 5.5 Category 5: Candidates under External Registration

A candidate seeking admission as external scholar will have to declare and register as such and produce the following at the time of registration.

- A letter from the employer permitting the candidate to pursue the course (No Objection Certificate)
- A commitment from the candidate and sanction from the employer that he/she would be permitted to avail leave at least for six months in not more than two installments during the tenure of Ph.D programme to attend the assigned subjects, for course work and Pre- Ph.D./M.Phil./M.S. examinations and thesis compilation, etc.

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- An undertaking for IPR and publications. The publication will have the affiliation of JNTUH, with respect to student scholar.
- All conditions including minimum qualifications for admission to research programmes prescribed for other categories of scholars would apply to these candidates as well.

# 5.6 Category 6: Candidates under External Registration and having MOU with JNTUH

- Scientists / engineers working in National Research Labs, PSUs and research organizations having MOU with JNTUH with research facilities with the qualifications prescribed by JNTUH will come under this category.
- All conditions including minimum qualifications for admission to research programmes prescribed for other categories of scholars would apply to these candidates as well.

### 5.7 Category 7: Candidates of Foreign Nationals (Full Time)

- The students under this category will be admitted by Directorate of University Foreign Relations under single window system in which the admission process of the foreign students, their welfare, day to day activities for their Ph.D. program, the collection of fee, etc., will be taken care of.
- All conditions including minimum qualifications for admission to research programmes prescribed for other categories of scholars would apply to these candidates as well.

### 6.0 ELIGIBILITY

In all faculties/departments, candidates must have passed the post graduate degree examination of the Jawaharlal Nehru Technological University Hyderabad (JNTUH) or an examination recognized as equivalent

by UGC in the discipline concerned with a minimum of 55% marks in aggregate and for SC and ST category, the aggregate shall be 50% marks in the concerned subjects. The maximum age limit for the Full-Time Research Programme shall be 35 years in case of fresh candidates, and 55 years in case of candidates in service in Educational Institutions / Government Organizations/ Industry/ Research Organizations. The desirable maximum age limit for external Research Programme is 55 years.

### 6.1 Educational Qualifications:

M.S. (by Research) Candidates must have B.E./ B.Tech./ B. Pharm. degree or its equivalent in the concerned branch/discipline with a minimum of 55% marks in the aggregate, and for SC and ST category, the aggregate shall be 50% marks, in the concerned branch or discipline. M.S. (by Research) is essentially a Research Programme for candidates in service.

Ph.D. and M.Phil. Candidates must have a Post Graduate Degree in the concerned faculty/branch/discipline, with a minimum of 55 % marks in aggregate, and for SC and ST category, the aggregate shall be 50% marks in the concerned faculty/branch/discipline. The educational qualifications for Ph.D and M.Phil. are given below.

SI.NO.	Faculty Name	Subject		
1.	ENGINEERING	B.Tech. and M.Tech in appropriate / relevant branch of Engineering		
2.	SCIENCE & TECHNOLOGY	<ul> <li>M.Sc or M.Sc (Tech.) in appropriate / relevant field of Science &amp; Technology</li> <li>MCA with M.Tech.</li> <li>MCA with M.Phil.</li> <li>For Pharmacy:</li> <li>B.Pharmacy and M.Pharmacy or Pharma.D</li> </ul>		
3.	MANAGEMENT	Master of Business Administration (MBA)		
4.	HUMANITIES AND SOCIAL SCIENCES	Master Degree in the respective Discipline		

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### 7.0 ADMISSION PROCESS

Admissions for the Research Programs M. Phil, M.S. (by Research) and Ph.D. shall be made by Director, Admissions, JNTUH, Hyderabad by conducting written test and interview. The minimum qualifying marks are 35% for SC/ST candidates and 50% for others in the Entrance Examination which is conducted by the Director, Admissions, JNTUH. Interviews will be conducted for the candidates qualified in the Entrance Examination conducted by JNTUH. Based on vacancy position and availability, the candidates with 1:2 ratio shall be called for University interview.

- In any academic year, the Directorate of R & D has to initiate the process of admissions into Ph.D./M.S./M.Phil. (External and Full Time) every year by notifying the number of vacancies Department / Subject wise and take the approval from Hon'ble Vice-Chancellor and forward the same to the Director, Admissions for further action.
- The Office of the Director, Admissions issues the notification as per the above approval, invites applications which are then scrutinized by the respective Departmental Research Committees constituted, based on candidates' qualifications.
- Entrance Test will be conducted for those who are shortlisted after scrutiny subject wise by the office of the Director, Admissions.

- Candidates who qualify in the Entrance Examination as per the guidelines notified (Minimum marks of 50% for general and 35% for SC/ST in Entrance Test) will be advised to go to eligible Supervisors / Co-Supervisors (eligible supervisors/co-supervisors subject wise updated by R & D Section, JNTUH from time to time) as the case may be to get their consent in the prescribed format (to be downloaded from the JNTUH website) which is to be submitted in the office of the Director, Admissions for enabling them to be called for Interview for final selection. However, if any qualified candidates are unable to get consent of any faculty for any reasons, he/she will be permitted to attend for interview as per merit rank. After obtaining final selection, he/she may be allotted a supervisor / co-supervisor by the University.
- Preparation of Schedule of interviews, conduct of interviews subject wise by respective interview boards with the permission of the Hon'ble Vice-Chancellor will be taken care by the Director, Admissions.
- The admission letters will be issued by the admission section to the final selected candidates based on the vacancy position of Supervisor/Co-Supervisor Department/Subject Branch wise provided by the Director, R&D. The list of selected candidates will be sent to R & D by the Director, Admissions along with a copy of admission letters.

### 8.0 PERIOD OF STUDY

- Research Scholars registered for Ph.D. (Full-Time/External) can submit the thesis after completion of a minimum of three years from the date of admission, subject to passing of the prescribed two theory subjects, Research Methodology and two Pre-Ph.D. subjects and Research publications as stipulated and fulfilling all the requirements.
- Research Scholars registered for M.Phil. or M.S. (by Research)

Programmes can submit the thesis after the completion of a minimum of two years from the date of registration.

- Full-Time/External Candidates should complete the research work within a maximum period of 6 years respectively. They should pay Tuition Fee until the end of the year in which the thesis is submitted. If the Tuition Fee is not paid as per rules, penalty may be levied by the Director, R&D. If Tuition Fee is not paid continuously for two years, the registration will be cancelled.
- Late Submission: If the candidate fails to submit thesis within stipulated period, his/her registration will be cancelled. However, depending on the progress of the work and as per the recommendation of the DRC, permission for submission of Thesis may given with a penalty and approval from Vice Chancellor based on the merit of the case.
- For M.Phil. and M.S.(by Research) candidates, the maximum duration of the programme will be four years. After passing the two theory subjects, Research Methodology Course and Pre-M.Phil / M.S. examinations and completion of at least two years from the date of admission, and having one peer-reviewed national/ international Journal/Conference paper, M.Phil and M.S. candidates are eligible for submission of their thesis.

#### 9.0 Pre-Ph.D./Pre-M.S./Pre-M.Phil. & COURSEWORK

#### 9.1 Pre-Ph.D./Pre-M.S./Pre-M.Phil.

 These Research Programmes are aimed at giving research oriented training in the concerned field in addition to specialization in a particular area. A minimum of two courses shall be prescribed in the relevant field of research for the Pre-Ph.D./Pre-M.S./Pre-M.Phil. examinations as recommended by the Supervisor and Cosupervisor, and to be communicated to the Director, R & D for approval which will be forwarded to the Director of Evaluation. The Pre-Ph.D./M.S./M.Phil. exam dates and time schedule will be intimated by Director of Evaluation (Examination Branch) on JNTUH website. No individual letters will be sent to research scholars.

- The candidates are required to pass in these two subjects; The minimum marks required for a pass in each subject shall be 50%. In case a candidate fails to pass in three attempts, his admission shall be cancelled. Pre-Ph.D./Pre- M.S./Pre-M.Phil. exams fees is same whether the candidate is appearing for two papers or one paper at a time (at present the fees is Rs. 2000/-). The Pre-Ph.D./Pre-M.S./Pre-M.S./Pre-M.Phil. exams hall ticket will be issued by R&D two days before the scheduled exam, subject to the condition that research scholar fees payments are up to date.
- Generally the Pre-Ph.D./ Pre-M.S./ Pre-M.Phil. examination shall be held twice in a year. The conduct of these examinations, declarations of results, and preparation of marks lists will be carried out by the Office of the Director, Evaluations (examination branch), JNTUH.
- Re-evaluation process will not be entertained for Pre-Ph.D. Examinations.



- Three chances will be given to research scholars to write Pre-Ph.D examination.
- The subjects offered for Pre-Ph.D./Pre-M.S./Pre-M.Phil. examinations in various faculties including syllabi is available on the university website, which will be displayed by R&D Office.

#### 9.2 Coursework

As per the UGC Guidelines, a Coursework of one Semester is compulsory. The coursework for the Ph.D./M.Phil./M.S. Programmes therefore shall also include two Subjects (theory) with compulsory attendance and associated mid-semester (internal) + end-semester (external) examinations.

The two theory Subjects will have to be chosen from the available lists of subjects prescribed for the Regular (Day-Time) PG or Part-time PG Programmes of the concerned field of specialization (or the nearest specialization) and being offered by the constituent Academic Unit/Department/Centre of JNTUH at Hyderabad Campus, in that Semester (either odd semester or even semester). The choice and selection of the two Subjects must be approved by the candidate's Supervisor and Co-Supervisor, and the same must be communicated to the Director, R&D in hard copy form, with appropriate signatures and seals of Supervisor, Co-Supervisor and Head of the Department concerned (offering those two courses); Subjects once chosen, cannot be changed in the entire research period. There shall not be any repetition of subjects of M.Tech / M.Sc. in coursework or Pre-Ph.D. The research candidates have to be physically be present for the teaching classes in the above two subjects, throughout that semester, and shall have to maintain the required 75% of attendance, based on which alone they will be permitted to write the end-semester exams. In these subjects their (mid-exams) internal examinations shall be conducted by the concerned teacher at specified times. Evaluation pattern in midexams and end-semester exams shall be as per the University norms as prescribed by examinations unit. The candidates shall attend the classes

and appear for all the exams together with the other students of the concerned PG/PTPG Programme.

Coursework may be carried out in departments/institutes/Autonomous colleges of JNTUH. If the candidates fail in any of the subjects, they have to reappear for the exams of the related subjects, as and when offered, as per the Academic Regulations; they need not attend class-work again, provided they maintained the minimum attendance requirements earlier. However, if the candidates do not have the required minimum percentage of attendance in any subject, they will be detained in those subjects, and shall have to reappear for class-works in those subjects again, as and when they are offered, shall maintain the attendances required and then appear for the mid- semester and end-semester examinations.

- The Director of Evaluation shall provide necessary support for the Research Scholars for the conduct of End Semester Examinations as per University norms.
- The coursework shall be conducted in the Constituent Units of JNTUH during summer vacation under the supervision of the Principal / Director, if necessary.
- A subject registration fee of Rs.5,000/- per subject shall be collected by the Director / Principal concerned of the Institute.

Supervisor will design the syllabi of coursework and will take the approval of DRC and both the papers should be other than M.Tech./M.Sc. course subjects.

### 9.3 Research Methodology

 One Course (Theory) on "Research Methodology", is mandatory with compulsory attendance and internal audit. They must produce a certificate of satisfactory completion of the course from the Director R&D, at the time of submission of thesis. The research scholar shall complete this research methodology course before the Research Review Meetings (RRMs).



- The coursework on "Research Methodology" shall be offered 3 to 4 times in each year, commonly for all the research scholars of identified areas of specialization, at JNTUH Campus by DRD. All the scholars must have to be physically present and maintain the required minimum attendance criterion (75%) in this course; however, the evaluation will be done by the concerned teacher internally, and the audited performance outcome shall be indicated as Satisfactory or Not-Satisfactory. All scholars whose performance have been graded as Not-Satisfactory, shall have to repeat the course as and when offered. This is a compulsory course and each scholar must attend this course of one week duration at DRD, JNTUH.
- DRD will initiate steps to frame syllabus for the Research Methodology course. The syllabus can be different for Science and Technology and Humanities stream and Engineering streams. Some portion of the syllabus can be common for both the streams. In faculties like Pharmacy, Humanities etc. where Part-Time programmes are not available the candidates have to take subjects in other faculties in institutes wherever they are available/offered.
- Research methodology is an audit course. It will be offered by JNTUH, on its campus during summer / winter vacation. Ph.D., M.S and M.Phil. scholars have to register for this course as per the guidelines given by R&D. Attendance is compulsory for this course. The fee is Rs. 5,000/-

### 10.0 PROGRESS OF RESEARCH WORK

### **10.1 Publications**

For the candidate to submit the thesis for Ph.D., he/she shall publish three research papers with at least two papers published in a peer-reviewed National or International Journal with ISSN and impact factor of more than 1 preferably. Such publications will be recognized (which have to be



enclosed to the thesis), and at least one in International/ National Journals/ Conferences, In the Journal papers and Conference papers, the research scholars name must be as the first author with JNTUH affiliation. In case the supervisor/co-supervisor is the first author, the research scholar's name must be the next. The candidate can also submit the thesis, if he/she has at least one recognized patent rights, whose evidence and details are to be enclosed.

 Research Scholars shall be instructed to publish at least two journal papers in referred journals, having a standing of at least 10 years, for which the list of journals will be provided by DRD. They should have preferably two published papers in National / International Conferences conducted by accredited bodies / Universities in relevant disciplines. The reviewers' comments of all publications must be attached.



### 10.2 Research Review Meeting (RRM)

For the purpose of monitoring the progress of Research works, all the research candidates including those who are on the current rolls of JNTUH for Ph.D./ M.S.(by Research)/ M.Phil., are required to attend Research Review Meetings (RRM) and make Power Point presentations as and when they are conducted. At the time of RRM, research scholars should submit hard copies of their research progress in duplicate, in



prescribed format through supervisor and co-supervisor.

Additionally, tangible output if any, such as: Journal Publications/ Presentations in a Conference/ Poster Presentation in a Seminar/ Conference or a Patent, etc. should be submitted. For the RRMs, the presence of Supervisor or Co-supervisor of the candidate may be optional. The intimation of RRM will be on the JNTUH website/by email/ by SMS whichever is convenient. Candidates are requested to see JNTUH website periodically. No individual letters will be sent to research scholars. Each research scholar must attend atleast two RRMs and the reports should be satisfactory. The progress of work is assessed by DRC in terms of Satisfactory/unsatisfactory.

- The Supervisor should certify that the Full-Time research scholar has given more number of research seminars (preferably 6 to 8) in the department during his/her period of research.
- The Supervisor should certify that the Full-Time scholar has attended at least two research seminars/conferences held in Universities/Institutions with at least one in other University/Institute.
- A candidate has to successfully complete two RRMs with satisfactory report before colloquium.
- Supervisor and Co-supervisor shall be present for the RRMs as DRC member

### 10.3 Colloquium

Each candidate shall present at least one seminar. The seminar should be at least one month before submission of thesis in the concerned Department on the research work, carried out by him/her. The scholar should submit five copies of synopsis to DRC highlighting original/significant contributions made in the research work. The candidates are expected to make a PPT presentation about the research work done by them. The DRC is empowered to accept the research work of scholar for submission or may advise to revise/reappear with modification made. The seminar will be open to all faculty members and research scholars. If the scholar is advised to revise the thesis he/she can revise and resubmit it after one month.

### 11.0 ANTI-PLAGIARISM

For ensuring originality of submitted content, the thesis will be checked by an anti-plagiarism software. After completion of Colloquium a soft copy of thesis in word format should be brought along in person to R & D and have it checked before binding and sending it to the evaluation section. If any text strings/figures are found to be copied or dubious without proper acknowledgement of the source, the thesis has to be thoroughly revised. In such event the revised soft copy of the CD must be submitted within the stipulated time from the date of checking with anti- plagiarism service. The stipulated percentage permissible includes the candidates own publications and presentations. A soft copy of the thesis must also be submitted with all the modifications and corrections made in the thesis after Colloquium and anti-plagiarism check.

A maximum number of three chances will be given to the research scholar, if the percentage of plagiarism exceeds the approved limit. The revised soft copy of the thesis after removing the plagiarism material must be submitted by the research scholar for the second or the third verification within one month itself. The fourth chance may be considered if the reason is genuine and also with the approval of honourable Vice-Chancellor.

The words wherever he/him/his occur they will also include she/her/hers respectively. The candidates are advised to see the JNTUH website www.jntuh.ac.in for instructions from time to time. For any clarifications, candidates can contact Office of the Director, Research and Development, JNTUH, Hyderabad through e-mail. The limits of similarity index are as follow:

- a) The overall similarity index shall not exceed 24%.
- b) The similarity index from a single source (other than author's publication) shall not exceed 3%.



### 12.0 THESIS SUBMISSION AND PROCESSING

- A candidate may submit the thesis any time during one month before or after the expiry of the stipulated period of research. However, the candidate may be permitted to submit his/her thesis during the above period duly recommended by the Research Supervisor and with the permission of the Director, Research and Development within a grace period of two months after expiry period of research. Each Scholar, after completing the due formalities is required to submit to the specified number of copies of his/her synopsis and thesis, along with the prescribed application form available at R&D Downloads. The minimum duration or period for the thesis submission is only after 3 years from the date of registration.
- A candidate has to submit eight (8) copies of the approved synopsis, seven (7) copies of thesis, an application enclosed with a Demand Draft of Rs. 2000/- for evaluation fee (which will be revised from time to time) in favour of the Registrar, JNTUH Hyderabad, Copy of Pre-Ph.D. Marks Memo and a sealed cover of Panel of Examiners to the Director, Research and Development, JNTUH.
- Seven copies of the thesis should be submitted, incorporating a certificate from the supervisor to the effect that the thesis is an original work of the candidate and a declaration by the candidate to the effect that the thesis either in part or full does not constitute any part of any thesis/ dissertation/ monograph submitted by him/her or any other person to any University/Institute.
- The thesis should also contain the signature of the Head of the Institution/Organization (from place of work) in addition to the Supervisor's signature.
- The candidate shall be held responsible for the genuineness of his/her work and any false statement shall lead to cancellation of his/her registration/degree at any stage even after the declaration of results.

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- The thesis shall be submitted only upon the positive recommendation of the DRC in colloquium. The Supervisor of the candidate shall send a panel of nine (9) Examiners in a sealed cover to the Director, R&D.
- The Panel of Examiners, three from IITs/ IISc/ Foreign Universities or equivalent National level Research Institutions, three from NITs or Research Labs of National repute or equivalent and three (3) from other Government Universities within or out of state. The University has the right to revise the panel of examiners if necessary. Out of the panel of nine names of examiners submitted, at least six shall be outside the state of Telangana and no examiner from the same University/Organization. Necessary care is to be taken to avoid the names of Organization/ University of supervisor and co-supervisor and its affiliated colleges.
- Panel of the names is to be submitted with all particulars, like complete address, designation, telephone numbers/fax/email; number of publications of the examiner etc. Only one examiner may be included from the panel from any Organization/ Institution/ University.
- Subject experts from the Organization where the Supervisor/Cosupervisor belongs, and persons related to candidate shall not be included in the panel of the examiners.
- A softcopy of candidate's photo should be submitted to Director, R&D at the time of registration.

### 13.0 EVALUATION OF THE THESIS

 The thesis shall be evaluated independently by three examiners, external to the University, one of whom shall be from outside the State and preferably from IITs/IISc/Institute of high reputation where Ph.D. programmes are offered.



- The examiners external to the University shall be selected by the Vice-Chancellor from amongst a panel of 9 names, submitted by Director, R&D.
- The examiners are required to:
  - (a) Outline the main features of the thesis.
  - (b) Critically evaluate the thesis and send a report on the thesis in not less than 500 words.
  - (c) Make one of the following four definite recommendations.
    - (i) The thesis attains the standard required for the award of the Ph.D. degree.
    - (ii) The thesis requires revision and re-submission for vivavoce examination.
    - (iii) The thesis requires revision and re-submission for reevaluation by the same examiner.
    - (iv) The thesis is rejected.

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• The university shall take a decision on the thesis based on the three reports according to the following:

Recomm	endation of Ex	Decision	
1	2	3	4
Accept	Accept	Accept	Accept
Revise	Revise	Revise	Revise
Reject	Reject	Reject	Reject
Accept	Accept	Revise	Revise
Accept	Revise	Revise	Revise
Accept	Accept	Reject	Sent to 4th examiner
Accept	Reject	Reject	Sent to 4th examiner*
Revise	Revise	Reject	Sent to 4th examiner*
Revise	Reject	Reject	Reject

\* If the 4th examiner also rejects, a committee may be constituted to examine such cases and based on the recommendations, the decision will be taken by University.

For revision and re-submission of the thesis, the candidate will be given a maximum period of one year from the date of communication of the report


(s) to the candidate. The revised thesis shall be referred to those examiners who have originally recommended revision and re-submission for revaluation.

## 13.1 Revision and Re-submission of Thesis

- If one examiner rejects the thesis, the comments made by the examiner should be forwarded to the Supervisor and also to the candidate for their justification / clarification. After receiving their justification / clarification, the Viva-Voce examination may be conducted.
- If two examiners reject the thesis, the candidate shall revise and resubmit it after one year, which will be sent for evaluation to the same examiner who had rejected it. If the two examiners reject it again, the thesis is summarily rejected. If the thesis is accepted at the second time, it will be accepted.
- The thesis shall be summarily rejected if all the three examiners reject it.

## 14.0 VIVA-VOCE EXAMINATION

Once the thesis is accepted, a comprehensive Viva-Voce examination shall be arranged by the Director, Research and Development on receipt of communication from the Director of Evaluation, JNTUH. The internal examiner should contact the Director, Research and Development before fixing the dates for Viva-Voce Examination. The Scholar should bring the thesis copy for Viva – Voce Exam.

One copy of approved Ph.D. thesis and a soft copy shall be submitted by the candidate before the Viva-Voce examination to the Director, Research and Development. The same shall be placed in the University Library as a record. The Scholar must submit a Hard Copy of thesis to the HoD for the Department Library. The Research Scholar should contact the HoD, one day before to ensure the logistic arrangements for Viva-Voce examination. There should not be any communication from Director of Evaluation to research scholar at any time.



The open Viva-Voce examination shall be conducted in the concerned Department/Unit/Center/Directorate of Research and Development by a Board of Examiners, consisting of two examiners, one of whom has evaluated the thesis and the other is the supervisor. The internal examiner before fixing the date for the Ph.D. viva-voce exam should consult HoD; Director, Research and Development in addition to the candidate and external examiners. In case the Examiners who accepted the thesis are not available for the Conduct of the Viva - Voce Examination, the Vice-Chancellor may nominate another examiner from the original panel of examiners.

The reports of the external examiners shall be made available to the Board for the Viva-Voce examination. The Viva-Voce examination should primarily be designed to test the understanding of the candidate on the subject matter of the thesis, including methodology employed and the candidate's competence in the general field of study. The candidate should also be asked to clarify any of the points raised by the external/adjudicators in their reports.

The Viva-Voce Board may on the basis of the unanimous opinion recommend either:

a) That the candidate be awarded the Ph.D. Degree or

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- b) That the candidate may appear for the Viva-Voce examination again after a stipulated time
- c) Any candidate who does not satisfy (b) will not be considered for the award of degree.

Upon successful completion of the Viva-Voce Examination, and on consideration of the reports of the individual examiners, the candidate has to apply for Provisional Certificate immediately within two (2) days. Otherwise a penalty of Rs.2000/- will be imposed.

The Hon'ble Vice-Chancellor may approve the announcement of the



award of the provisional Ph.D. Degree to the candidate and Provisional Certificate (P.C.) will be issued. At the time of collecting P.C. the candidate must submit a soft copy of thesis with all the modifications made as suggested by the examiner in Viva-Voce, if any. Submission of CD with revisions if any is necessary to collect the Provisional Certificate/Original Degree. The soft copy of the thesis submitted by the candidate will be sent to Information and Library Network Centre (INFLIBNET) of UGC to upload into the web Shodhganga which is mandatory. As such the candidates have to submit the proforma (Specimen Format for Thesis of Month) and an undertaking form with 1 or 2 pages of Abstract with a soft copy. The candidate must submit a copy of the SSC pass certificate for the record of the name on Provisional Certificate/Original Degree. The candidate's name must be as per SSC record only in the admission register of R&D, marks memos and also on the thesis.

The award of the Degree shall be confirmed by the Executive Council of the University.



## 15.0 GENERAL INFORMATION

• The registration of a Ph.D. scholar may be cancelled by the Director, R&D within the stipulated period, if the candidate fails to satisfy the conditions stipulated in the admission order or violates the rules and regulations of Ph.D. after giving notice to the concerned candidate.

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- The Director, R&D may cancel the registration of a Ph.D. scholar on the recommendation of the supervisor and/or doctoral committee under the following circumstances after giving notice to the candidate:
- I) where the progress has been reported to be unsatisfactory in two consecutive half yearly RRMs.
- ii) where a Scholar discontinues research, and/or where they have accepted any of appointment other than specified earlier without the written consent from JNTUH.
- iii) where the Scholar has not submitted the thesis in the stipulated duration of the course.
- iv) Where the Scholar request for cancellation due to their personal reasons
- In case the research scholar applies for change of area of research (topic), he/she has to take due approval from DR&D and can submit the thesis only after at least one year from the date of approval of change of area of research. This is because he/she is supposed to work in the approved new area compared to what was mentioned by him/her at the time of admission.
- Title of thesis: This should be as approved by the colloquium committee before the submission of the thesis. The candidate can submit the proforma for colloquium with the old title and request the colloquium committee to approve the new title. In such an event the revised title must be clearly written in the proforma and all the members of the colloquium committee must sign on the proforma. Then there should not be any change in the title once it is approved by the colloquium committee.
- The Directorate of Research & Development will maintain Receipt books, cash book, details of financial transactions etc. The original certificates and admission folio of the scholar shall be maintained by the Office of the Research & Development, till the completion of the research programme of the respective candidates.



- A Student Admission Number, which will also be the Hall Ticket number, will be assigned to the scholar. An Identity Card for the exclusive use of academic facilities of JNTUH, will be given to each candidate signed by Director, Research & Development.
- During the research period time of JNTUH, the scholar shall not register for any other course, at any other University or Institution, leading to the award of a degree. In case of any such ambiguity, he/she will forfeit the admission at JNTUH.
- Candidate seeking admission to register their name for research programme (M.Phil./M.S. by Research / Ph.D.) in external mode at JNTUH, should submit his/her application duly signed by Supervisor and/or Co-Supervisor and along with the signature of the Head of the Institution/Organization where candidate is employed/is carrying out his/her research work.
- In any letter being submitted to the Director, R&D by the candidate the signatures of Research Supervisor and/or co-supervisor are necessary and mandatory.
- If a candidate wants to change the topic, title or supervisor/s, it should be done with the approval of the University. For this purpose, the candidate should apply in the prescribed format and submit to the Director, R&D. The application from the candidate for change of title/ topic / supervisor(s) shall be endorsed by the supervisor and/or cosupervisor/both. If the application is for change of supervisor, the letters of No Objection from both, old and proposed supervisor(s) should be submitted. For change of Supervisor, the thesis submission date will be one calendar year after the change is affected. Bio-data of the New Supervisor/ Co-Supervisor also should be attached with the application, with relevant documents as prescribed at the time of application. For major research related issues, the DRC will examine on a case by case basis and give its recommendations.
- Any change in the title of the thesis must be approved in the colloquium. If the colloquium committee suggests any modifications/changes in the title proposed by the candidate, the

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new title must be clearly written in the colloquium committee report duly signed by the chairman and other members of the committee. There shouldn't be any deviation in the title approved in colloquium to the title given on the thesis copies.

- The University may permit modification in the topic (within 3 years only) of area of research, provided it is done in the early stages of the doctoral work. If the re-submitted topic of work is different from the original proposed topic, it constitutes a change of topic and represents a major change. For such cases, the thesis submission date will be one calendar year after the change is affected.
- Faculty members involved in active research may be considered for supervisorship. The decision of Hon'ble Vice Chancellor in allotting Research supervisors to a particular research scholar is final.
- If a situation arises where there is a conflict between Research Scholar and Supervisor / Co-Supervisor, the decision of University regarding Change of Supervisor / Co-Supervisor is final.
- The scholar is expected to publish research papers in reputed journals as defined by the University. The number of research papers in conferences and journals is 3 + 3 in a duration of 3 years. The list of journals will be provided by Research Advisory Committee (RAC) and scholar is expected to attend / present his/her research work in conference / Workshops / Seminars conducted in collaboration with reputed and pertinent professional societies.
- The scholars are required to actively involve in doing original research resulting in possible IPR and patents.
- The two theory courses, research methodology and two Pre Ph.D courses must be completed at any time before applying for colloquium. The two theory coursework subjects and two Pre-Ph.D subjects must be different and there shall not be any overlap of subjects of his/her PG subjects.

The academic regulations should be read as a whole for purposes of any interpretation.



- In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Vice-Chancellor is final.
- The University reserves the right to alter the regulations from time to time as and when necessary.
- Research Scholars shall show due respect to the officers and teachers of the Institute and other employees of the institute. Proper courtesy and consideration should be extended to all employees of the Institute. They shall also pay due attention and courtesy to visitors.
- Research Scholars are required to develop a friendly camaraderie with fellow scholar's. In particular, they are expected to show kindness and consideration to the new scholar's admitted to the Institute every year. Ragging of newcomers in any form is banned by law: acts of ragging will be considered gross indiscipline and will be severely dealt with.
- The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures:
- Ragging
- Lack of courtesy and decorum; indecent behavior anywhere within or outside the campus
- Willful damage or stealthy removal of any property / belongings of the Institute or of fellow scholars
- Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drug
- Adoption of unfair means in the examinations
- Mutilation or unauthorized possession of library books
- Noisy and unseemly behavior, disturbing studies of fellow scholars Commensurate with the gravity of the offense, the punishment may be reprimand, fine, suspension of fellowship, debarment from an examination or RRMs, rustication for a specified period or even outright expulsion from the Institute.

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- The Head of the Department, Chairman BOS, the Head of the Unit (Principal/Director) respectively, shall have the authority to reprimand or impose fine or take any other suitable measures for maintaining the discipline.
- Change of status from one category to another category or from fulltime to part time and vice versa, will be subject to approval of the University.
- No scholar can receive scholarship/fellowship from more than one source, either Government or Private.
- The fee particulars and mode of payment and other related details may be obtained from the office of Research and Development of JNTUH. Fee Payment for Full-Time as well as External Candidates is year-wise may be paid before 31st July of every year in DRD. Payment must be made in the form of a crossed DD in favour of 'The Registrar, JNTUH' / Director R&D, payable at Hyderabad from any nationalized banks. A candidate must write his/her name, roll number and complete address (E-mail ID & Contact no.) at the back of the DD. A candidate must clear all the fee dues before colloquium.
- In the case of candidates who will not be able to complete Ph.D. even after the stipulated time period of six years and with further extension of two more years, i.e, within eight years they have to pay the existing annual fee at that time for the students admitted during that period. In the event of cancellation of Ph.D. registration by the candidate on his/her request or by University for any reason, all the fee amount due must be cleared by the candidate for the return of original certificates. If any reason a candidate takes his/her Original Certificates temporarily from the R&D office during the course of research work, the original certificates must be returned within the stipulated time as decided by Director, R&D, otherwise their admission is liable to be cancelled. The requisition for Original Certificates on temporary basis must be given on a Rs. 10/- bond paper mentioning the date before which the certificates will be returned back to the office.

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Note

Note



JNTUH College of Engineering Hyderabad, Telangana State



### JNTUH College of Engineering Sulthanpur, Telangana State



# DIRECTORATE OF RESEARCH AND DEVELOPMENT

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD Kukatpally, Hyderabad - 500 085. Telangana State, INDIA Email: directorrnd@jntuh.ac.in Ph: 040-23152332, Fax: 040-23152331

Website: www.jntuh.ac.in