राष्ट्रीय प्रौद्योगिकी संस्थान,राउरकेला
National Institute of Technology, Rourkela

Admission To Ph.D / M.Tech.(Research) Programmes Starting Spring Semester (January), 2015-16

A. Applications are invited **online** from eligible candidates for admission to Ph.D. and M.Tech. (Research) Programmes of the Institute with or without fellowship for Spring Semester 2015-16.

Departments	Programme(s) being Offered	
	Ph.D	**M.Tech.(Res)**
Biotechnology and Medical Engineering (BM)	Yes	No
Civil Engineering (CE)	Yes	No
Chemical Engineering (CH)	Yes (Molecular Simulation for Development of novel materials, Phase transition, (CFD modelling and evaporative heat transfer areas only)	Yes(Same areas as Ph.D)
Ceramic Engineering (CR)	Yes	Yes
Computer Science & Engineering (CS)	Yes	No
Chemistry (CY)	Yes	No
Electronics & Communication Engineering (EC)	Yes	No
Electrical Engineering (EE)	Yes (Power System, Power Electronics & Drives, Signal Processing, Communication and Control areas only)	Yes(Same areas as Ph.D)
Earth and Atmospheric Sciences (ER)	Yes	Yes
Humanities & Social Sciences (HS)	Yes(Economics, Sociology, Anthropology and Sanskrit areas only)	No
Industrial Design (ID)	Yes	Yes
Life Science (LS)	Yes	No
Mathematics (MA)	Yes	No
Mechanical Engineering (ME)	Yes	No
Mining Engineering (MN)	Yes (Geotechnical, Geospatial Technology, Geo/Rock Mechanics, Mine System Optimisation areas only)	Yes (Geomechanics and Environment areas only)
Planning and Architecture (PA)	Yes (History & theory of Architecture, Regional Planning , Socio-Economic Vulnerability, Housing, Urban Planning areas only)	No
Physics and Astronomy (PH)	Yes	Yes
School of Management (SM)	Yes (Marketing and Finance areas only)	No

Sponsored candidates may apply for Ph.D. and M.Tech.(Res) programmes of any discipline.

B.

Eligibility Criteria for Ph.D. Programme:

The minimum qualification required for admission to Ph.D. programme in Engineering, Science, Management, and Humanities & Social Sciences is one of the following:

a) M.E./M.Tech./M.Pharm in relevant discipline with at least 6.5 CGPA or 60 percent marks in aggregate in both B.Tech. (or M.Sc./B.Pharm/ MCA) and M.Tech. levels from a recognized technical Institute or University.

b) B.E./B.Tech./B.Pharm/MCA or equivalent in relevant discipline with CGPA of 7.0 or 65 percent marks in aggregate.

c) M.Sc. in Basic Sciences with CGPA 7.0 or 65 percent marks in aggregate in relevant disciplines.

d) M.B.B.S./B.V.Sc. with CGPA 6.5 or 60 percent marks in aggregate.

Additionally candidates having the following qualification can also apply for Ph.D. in Management and Humanities & Social Sciences:

M.A. / MBA / M.Com. /M. Sc. in Humanities, or Social Sciences or Management with 60 percent marks or 6.5 CGPA

Students without adequate background in the primary discipline will be required to have 10% extra marks (1.0 CGPA) to qualify over students with specialization in a primary discipline, unless explicitly exempted by the senate. List of primary disciplines for specializations under the various departments is given in Clause 'D' below:

C

Eligibility Criteria for M.Tech (Research) Programme:

The minimum qualification required for admission to M.Tech.(Research) programme in Engineering, Science, Management and Humanities & Social Science is one of the following:

a) B.E./B.Tech./B.Pharm/MCA or equivalent in relevant discipline with 60 percent marks in aggregate (or 6.5 CGPA).

b) M.Sc. in Basic Sciences with 60 percent marks in aggregate (or 6.5 CGPA) in relevant disciplines.

c) M.B.B.S./B.V.Sc. with 60 percent marks in aggregate (or 6.5 CGPA).

Additionally candidates having the following qualification can also apply for M.Tech.(R). in Management and Humanities & Social Sciences:

M.A. / MBA / M.Com. /M. Sc. in Humanities, or Social Sciences or Management with 60 percent marks or 6.5 CGPA.

Applicants Awaiting Results

1. For thesis based Postgraduate degrees [(M.Tech.(Research), MS or equivalent] a student is permitted to submit the final result within one year from the date of thesis submission. However, one documentary evidence (proof of thesis submission) from the candidate's Institute/University is required to be submitted at the time of admission.

For all course based degrees [B.Tech, M.Sc., MBA, M.Tech (Regular)] results need to have been published before admission is granted.

Differential academic qualifications across the departments have been made considering the departmental requirement, availability of candidates in the respective departments and uniform growth of all departments in the Institute.

D. Qualifying Degrees and Primary Disciplines for Admission to Ph.D/ M.Tech (Research) Programmes

The following are the minimum academic eligibility criteria to be eligible for applying to a programme. However, a higher short listing criteria (possibly different for different departments) may be set by the Department during scrutiny of applications depending on the departmental requirement, number and quality of applicants. In addition to the minimum eligibility criteria, following mandatory eligibility criteria will be used for shortlisting the candidates. Therefore, merely satisfying the minimum eligibility criteria does not guarantee a candidate to be called for interview and mere attending an interview does not guarantee a seat for admission.

1. In addition to the minimum eligibility criteria (based on B. Tech, M.Sc., MBA, MA, M. Tech. and M. Pharm examinations) a candidate should score minimum 60% marks or 6.5/10 CGPA throughout career to be eligible for admission to Ph.D. or M.Tech.(Res) programme. The DRC, however, may make one exception (marks <60% or Grade < 6.5/10) at its discretion from among the results of 10th, +2, BA, B.Sc., Diploma etc.(except qualifying degree) if the candidate has qualified GATE/NET/GPAT.

2. For admission to Engineering and Science disciplines (except Life Science), a candidate should have passed Mathematics in +2 Science.

3. Science students admitted to Ph.D. programme in Engineering need Mathematics in +3 level. Students without Mathematics in +3 level may be admitted under the condition that they will have to register for 16 credits of 100 and 200 level Mathematics and 100 level Computer Science courses (Theory and Practical) in addition to their normal course requirement, and secure at least C grade in each course.

Department	Academic Eligibility
Biotechnology and Medical Engineering (BM)	M.Tech. / M. E. (with B.Tech/BE) in Biomedical/ Chemical/ Computer Science/ Electronics/ Electrical/ Mechanical/ Ceramics**/** Metallurgical & Materials/ Biochemical Engineering/ Biotechnology/ Material Science/ M. Pharm OR B.Tech/B.E. (with valid GATE / GPAT) in the above disciplines OR MBBS.
Civil Engineering (CE)	B.Tech. in Civil Engineering with GATE in Civil Engineering / M.Tech. in Civil/Mining/Mechanical/Agricultural/ Chemical Engineering.
Chemical Engineering (CH)	B.Tech/M.Tech in Chemical / Petroleum and Petrochemical/ Polymer/ Environmental / Metallurgical & Materials / Ceramic / Mechanical / Biochemical / Mining Engineering/ Nanotechnology/ Biotechnology / any other relevant branch of Engineering and Technology.
Ceramic Engineering (CR)	B.Tech./M.Tech in Ceramic / Metallurgical & Materials / Chemical / Mechanical Engg. / Biomedical Engg /Nanotechnology/Biotechnology Or M.Sc. in Physics / Chemistry / Materials Science/ Nano Science.
Computer Science & Engineering (CS)	B.Tech with GATE/M.Tech in Computer Science & Engineering / Information Technology Or MCA or M.Sc. in Computer Science / Information Technology with GATE.
Chemistry (CY)	M.Sc. in Chemistry, Physics, Biochemistry or B.Tech / M.Tech in Chemical / Ceramic / Metallurgical and Materials Engineering / Biotechnology.
Electronics & Communication Engineering (EC)	B.Tech. with GATE / M.Tech in Electronics / Electrical / Electronics & Communication/ Electronics & Telecommunication/ Electronics & Instrumentation/ Applied Electronics & Instrumentation/ Electrical and Electronics Engineering.
Electrical Engineering (EE)	B.Tech. with GATE / M.Tech in Electrical / Electronics / Electrical & Electronics / Electronics & Communication / Instrumentation Engineering/ Instrumentation & Control.
Earth & Atmospheric Sciences (ER)	**Earth Science** **For Ph.D.:** M.Sc / M.Tech in Geology / Applied Geology / Geophysics / Environmental Science / Remote Sensing / Chemistry / Physics or equivalent disciplines in science. **For M.Tech(Research):** M.Sc. in Geology / Applied Geology / Geophysics / Environmental Science / Remote Sensing / Mathematics / Chemistry / Physics or equivalent disciplines in science.

	Atmospheric Science **For Ph.D**: M.Sc/M.Tech in Atmospheric Sciences / Climate Science / Meteorology / Mathematics / Chemistry / Physics Environmental Sciences / Remote Sensing / Computer Science or in equivalent disciplines in science. **For M.Tech(Research):** M.Sc. in Atmospheric Science / Meteorology / Environmental Science / Remote Sensing / Computer Science / Mathematics / Chemistry / Physics or in equivalent disciplines in science. Note:B.Tech. in any branch of Engineering with or without Gate score will also be considered.
Humanities and Social Sciences (HS)	M.Sc. / MA in relevant subjects or B.Tech/M.Tech in any branch of Engineering or MBA. Candidates with UGC NET/JRF qualification will be preferred.
Industrial Design (ID)	**Ph.D**: M.Des with any specialisation or M.E/M.Tech in Mechanical Engineering/ Manufacturing Science/ Production/Industrial Engineering/Automobile Engineering/Robotics/Mechatronics/ CIM/CAD-CAM/Product Design/Ergonomics/Design/Machine Design **M.Tech(Research):** B.E./B.Tech in Mechanical Engg./ Industrial Design
Life Sciences (LS)	M.Sc. in Life Sciences/ Botany/ Zoology/ Microbiology/ Biotechnology/ Biochemistry/ Bioinformatics / MBBS/ BVSc./Bio-Physics /Food Science & Technology.
Mechanical Engineering (ME)	B.Tech with GATE/M.Tech in Mechanical / Automobile / Production / Manufacturing / Industrial/ Aerospace/ Aeronautical Engineering.
Mathematics (MA)	M.Sc. in Mathematics / Statistics / Computer Science / Information Technology / MCA and First class Honours or equivalent in B.Sc. with Mathematics / Statistics as Honours subject. OR B.Tech / M.Tech in any branch of Engineering or equivalent.
Mining Engineering (MN)	B.E/B.Tech/M.Tech in Mining/ Civil/ Environment/ Chemical/ Electronics/ Electrical/ Instrumentation/ Computer Science/ Mechanical/Metallurgical & Materials Engineering or MSc in Geology/ Geo-Physics/Environmental Science/Remote Sensing/ Mathematics/Statistics/Chemistry/Physics.
Planning & Architecture (PA)	MCT/MURP/MUP/MTRP/M.Tech. in Urban Planning.
Physics and Astronomy (PH)	M.Sc. in any branch of Science with Mathematics and Physics at B.Sc. level or B.Tech. in any branch of Engineering.
School of Management (SM)	Master degree in Technology, Business Administration, Arts, Science, Commerce, Pharmacy OR Bachelor degree in Technology in any discipline.

Notes:
1. BE.,B.Tech., AMIE and other recognized Membership Examinations (approved by Government of India) will be considered equivalent for the purpose of Ph.D. & M.Tech.(Res) admission.
2. For selection of Research scholars in Engineering disciplines, Students with B.Tech. degree will be given preference over students with M.Sc. degree, even if the latter has an M.Tech. Degree.
3. Students with any other relevant background may be eligible, but only with approval of Senate or Chairman, Senate on the recommendation of the Departmental Research Committee (DRC).

Notes:

1. There is no relaxation in academic requirement for SC/ST/OBC/PH students, because the minimum academic requirements have been set to meet the basic challenges of the academic programme.

2. Differential academic qualifications across the departments have been made considering the departmental requirement, availability of candidates in the respective departments and uniform growth of all departments in the Institute.

3. Students of one discipline may seek admission in a related department which will be considered on the basis of merit of the case. Selection will be made on the basis of academic record, relevance of qualification, **candidate's research interest**, existing research programmes and facilities of the departments, and performance in tests and/or interviews.

E. **Financial support:**

Fellowships/Assistantships are available to meritorious Ph.D. and M.Tech (Res) students of all departments, the rate of which is given in the following table:

Sl. No.	Academic Programme	Qualification	** Duration	Rate of Fellowship/ Assistantship
1.	Ph.D.	M.Tech./M.Pharm	1st & 2nd year	Rs.25,000/-
			3rd & 4th year	Rs.28,000/-
		B.Tech./B.Pharm./M.Sc./MA*/M.Com*/MBA*/ MCA/MBBS With valid GATE/NET/GPAT score only	1st & 2nd year	Rs.25,000/-
			3rd, 4th & 5th year	Rs.28,000/-
3.	M.Tech.(Res)	B.Tech./ B.Pharm./ MBA/ M.Sc./ MCA/ MBBS/M.Com./M.A. [only valid GATE/ NET/GPAT score or an equivalent national graduate eligibility test score]	2 years	Rs 12,400/-

*Institute fellowship will be awarded at the mentioned rate subject to the confirmation from the MHRD, Govt. of India. Else they will get fellowship at the pre-revised rate of Rs.16000/- per month.

NOTE: If a student with Institute fellowship or project fellowship leaves the Institute in the mid-session on his own accord without completing the programme, the entire amount paid to him towards fellowship need to be returned by the student before leaving the Institute. He will not receive any certificate from the Institute unless he refunds the fellowship received in full. Students with project fellowship may not be required to refund only if sponsor's rule permit him leaving the project without refunding fellowship. Students receiving external fellowships will be governed as per the rules of the scholarship of the Sponsor.

Fellowships **will not be** awarded to candidates above 32 years of age for Ph.D. (35 years for SC/ST and women candidates) and above 28 years for M.Tech (Res) (31 years for SC/ST and women candidates) on 01.01.2016. The restriction shall not apply to scholarships awarded by external agencies or sponsored projects.

Individual External fellowships:

Candidates with individual external fellowships (CSIR/UGC NET/DST/INSPIRE etc.) are invited to apply. The selection process will be same as that for other candidates.

Sponsored candidates from Industry, R&D Institutes, Government organizations and reputed academic Institutes

A sponsored candidate is expected to work full time till completion of his programme, or at least 3 years from beginning in the Institute. However, in deserving cases, if facilities exist at his place of employment and his job assignment matches with the research problem, he may be permitted to work at the place of employment after satisfying residential requirement (normally 6 months to a year).

A student receiving fellowship or other financial support is required to assist faculty members of department in teaching and research activity. He may be required to take theory, tutorial and laboratory classes, assist in student projects or other R & D activities as assigned by the HOD/Coordinator.

Financial support is initially for a period of one year. All financial support can be renewed on year to year basis on satisfactory performance for 4 years (with M.Tech/M.Pharm Degree) and 5 years for others. Enhancement of fellowship for Ph.D students after first two years is subject to the satisfactory performance in the Progress Seminar and the effective date of Enhancement of fellowship will be the date of Seminar or 2 years form the date of enrolment whichever is later.

Refund Rule:

If a student is removed or he/she withdraws/leaves the Institute in the mid-session without completing the entire programme, all fees paid including the caution deposit will be forfeited by the institute. Mess advance may be refunded after deduction of dues, if any.

F. Fees:

Fees to be paid at the time of admission to PhD/M.Tech (Research) Programmes:

Sl.No.	Institute fees	Amount to be paid at the time of admission
1.	Admission fee (One time fee)	Rs.1500/-
2.	Tuition fee	Rs.7500/- [Nil for SC/ST students]
3.	Other fees (Exam., Library, Electrical etc.	Rs.3000/-
3.	Student activity fee	Rs.2000/-
5.	Hostel Seat rent	Rs.2500/-
6.	Medical fee	Rs.1000/-
7.	Caution Money(Refundable if programme is completed) (One time)	Rs.5000/-
TOTAL (to be paid through demand draft in favour of Director, NIT, Rourkela payable at any bank in Rourkela)		Rs.**22,500/-(Rs.15000/- in case of SC/ST students)**
Mess Advance (Draft to be made in favour of "Chief Warden of Halls, NIT Rourkela" payable at any bank in Rourkela)		**Rs.22,000/-**
The above fee is only for the 1st semester. For remaining semesters the approximate fee will be Rs.38,000/- per semester (Rs.30500 /- for SC/ST students) which is inclusive of Mess dues. However, the Institute reserves the right to amend the fee structure from time to time, which will be implemented with immediate effect for all students irrespective of the date of admission.		

G. Sponsored/Local Sponsored candidates:

The Institute welcomes candidates from reputed academic and R & D Institutions, as well as from Government organizations and Industry. Sponsored candidates can work full time in the Institute or at their place of work after satisfying residential requirements, if facilities exist at their parent organization. Local sponsored applicants (working in and around Rourkela having permanently non-transferable jobs) must have enough time and flexibility in their job assignment in order to continue the programme applied for. Their working hours to be suitably adjusted in the sponsored organization so that he/she can work on his/her studies at NIT Rourkela for at least 120 days and 500 hours per semester. Sponsored candidates must have completed at least two years of continuous service in the sponsoring organization, which must be an institution of repute employing good number of engineering/science professionals. The completion of two years continuous service shall be counted on July 31 and January 31 for Autumn and Spring semester admissions respectively. Sponsored students are expected to serve their sponsoring organization on completion of their degree in NIT, for at least 3 years after completion of the academic programme.

H. Application Procedure:

Interested candidates satisfying the eligibility criteria may submit **online application at http://eapplication.nitrkl.ac.in** following the instructions. **Applicants are advised to (a) use Internet Explorer browser version 6.0 or above, (b) read the advertisement carefully, (c) read the instructions to fill up the online application form (d) fill up and submit the online application form accordingly and (e) pay application fee of Rs.500/- online from online application portal.** Sponsored candidates are required to submit the scanned copy of the sponsorship certificate while submitting online application.

Applicants are **not** required to send hard copy of the application form or any other document to NIT Rourkela. However, candidates who will be called for interview will be required to submit signed copy of the application form, a set of Xerox copies of all certificates and original sponsorship certificate (for sponsored candidates only) at the time of interview. They also need to produce original certificates from HSC onwards for verification. The same will be forwarded to the Academic Office by the department for record.

I.

Important Dates for this advertisement:

Sl No	Event	Date
1	Application form will be available in the Institute website for online submission	16.10.2015 (Friday)
2	Application to be scrutinized	Submitted till 05.11.2015 (Thursday)
3	Completion of scrutiny of applications by all departments	10.11.2015 (Tuesday)
4	Result of scrutiny in the website	17.11.2015 (Tuesday)
5	Interview	04.12.2015 (Friday)
6	Result of Interview in the website	11.12.2015 (Friday)
7	Admission	22.12.2015 (Tuesday)
8	Semester Registration	01.01.2016 (Friday)
9	Starting of Class / Research work	04.01.2016 (Monday)
For the departments with poor availability of research students, as well as in all other special cases, admission can be done throughout the year with the approval of the Director. Intending applicants may contact the Head of the Department or the proposed supervisor.		

Applicants are required to visit the Institute website (www.nitrkl.ac.in) accordingly and regularly for any further update. They are also advised to book ticket in advance according to the interview and admission dates. In case they fail to qualify either in scrutiny or interview, they will cancel the ticket.

J.

Location:

NIT Rourkela is around 8 kms away from the railway station. Applicants may hire an auto and reach the Institute. The usual rate of auto fare at present is Rs.100/-.

K.

Accommodation for Interview:

NIT Rourkela is having two Guest Houses (South Block and North Block) with limited number of rooms. Accommodation will be provided on payment basis subject to the availability. Interested applicants may contact in the following details for booking accommodation.

Contact Person: Dr Samir Mohanty.

Telephone: 0661-2464000, 2464034

For further details please contact:

Deputy Registrar (AC), NIT Rourkela: Email: dr-acad@nitrkl.ac.in.

Sd/-
Deputy Registrar(Academic)