



राष्ट्रीय प्रौद्योगिकी संस्थान राउरकेला

NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

No. - NITR/AC/2020/M/0805 – FTS2469P

Date – 12/08/2020

Notice for Admission to Executive PhD and Part-Time MTech / MBA Programs Starting in Autumn 2020-21

Online applications are invited from interested and eligible Indian citizens for admission to the Executive PhD and Part-Time MTech/ MBA Programmes of the Institute for 2020-21 to be offered under **Self Financing Scheme**, the details of which are tabulated below.

Sl. No.	Name of the Department	Code	Specialization for Part-Time MTech/ Part-Time MBA	Indicative Broad Areas of Research for Executive PhD
1	Inter Disciplinary	--	----	----
2	Biotechnology and Medical Engineering	BM	----	Medical Electronics & Instrumentation, Biomaterials & Tissue Engineering, Cell & Molecular Engineering, Biomechanics & Bio-transport Engineering
3	Civil Engineering	CE	Geotechnical, Structural	Geotechnical Engineering, Water Resources Engineering, Structural Engineering, Transportation Engineering, Environmental Engineering
4	Chemical Engineering	CH	Coal Chemicals and Cryogenics	All the conventional areas under Chemical Engineering, Energy & Environmental Engineering, Biotechnology & Biochemical Engineering, Nano Science & Technology, Smart Materials and Sensing, Mathematical Applications and Analysis in Engineering, Data Based Process Design and Analysis (Analytics)
5	Ceramic Engineering	CR	----	Electro-Ceramics, Structural Ceramics, Industrial Ceramics, Nano-Bio Ceramics
6	Computer Science & Engineering	CS	Computer Science	All specializations of Computer Science & Engineering
7	Chemistry	CY	----	Inorganic, Organic, Physical, Materials, Bio-Inorganic, Organometallic, Biophysical Chemistry, Nano Science, Environmental, Computational, Theoretical Chemistry, Solid State, Biochemistry
8	Electronics & Communication Engineering	EC	Electronics & Instrumentation	RF & Microwaves, VLSI, Low Power, CMOS Circuit, Embedded Systems, IoT, Signal & Image Processing, Computer Vision, Wireless & DSP, Instrumentation

Sl. No.	Name of the Department	Code	Specialization for Part-Time MTech/ Part-Time MBA	Indicative Broad Areas of Research for Executive PhD
9	Electrical Engineering	EE	Industrial Power Control & Drives	Power & Energy, Communications, Digital Signal Processing, Computer & IT, Electronics & Control, Energy Policies, Energy Storage & Conversion
10	Earth and Atmospheric Science	ER	----	Geology, Applied Geology, Geophysics, Atmospheric Sciences, Ocean Sciences
11	Food Process Engineering	FP	----	Transport Process and Kinetics, Food Quality & Safety, Post-Harvest Operations, Food Packaging and Storage Engineering, Product Development and Ingredients Innovation, Food byproduct valorization and bioprocessing.
12	Humanities & Social Sciences	HS	----	Economics, English (JRF only), Sociology/Anthropology, Psychology, Sanskrit.
13	Industrial Design	ID	----	Product Design, Ergonomics Design, Manufacturing, Vibration, Noise Control, Meta-material, Acoustics, CAD, Human Simulation, Bio-Mechanics, Occupational Health & Safety, Human Factors, Geometric Modeling
14	Life Science	LS	----	All areas of Biological Science
15	Mathematics	MA	----	Numerical Analysis, Algebra, Number Theory, Fluid Dynamics, Differential Equation, Stochastic Process, Functional Analysis, Fractal Theory, Probability & Statistics, Fractional Calculus, Algebraic Graph Theory, Computational Finance, Soft Computing, Integral Equations, Mathematical Physics
16	Mechanical Engineering	ME	Thermal Engineering	Mechanical, Machine Design, Production/ Thermal, Cryogenic, Mechatronics, Robotics, Mechanical Vibrations, Automobile, Manufacturing, Industrial Management, Aerospace, Aeronautical Engineering, Composites, Tribology, Fluid Flow and Heat Transfer
17	Metallurgical & Materials Engineering	MM	Steel Technology	Mechanical Metallurgy, Process Metallurgy, Nano-materials
18	Mining Engineering	MN	----	All specialization of Mining Engineering
19	Planning and Architecture	PA	----	Urban Studies, Urban Planning, City Planning, Housing, Globalization and Cities, Global Cities, Social Infrastructure, Vernacular Architecture, Age Friendly Cities
20	Physics and Astronomy	PH	----	Stellar Astrophysics, Soft Matter Physics (Theory), Nuclear Astrophysics, Astrophysics, Polymer Composites

21	School of Management	SM	HR, Marketing, Operations, Finance	HR, Marketing, Operations, Finance, Business Analytics, General Management
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Qualification Required for Executive PhD Program

Minimum qualification required for admission to Executive PhD programs in Engineering, Science, Planning & Architecture, Management, and Humanities & Social Sciences is one of the following:

- a) M.E./M.Tech./M.Pharm./M.Arch./M.Des. in relevant discipline with at least 6.5 CGPA or 60 percent marks or 1st class in both B.Tech. (M.Sc./B.Pharm./MCA or equivalent) and M.Tech. levels from a recognized Technical Institute or University.
- b) B.E./B.Tech./B.Pharm./MCA/B.Arch. or equivalent in relevant discipline with CGPA of 7.0 or 65 percent marks.
- c) M.Sc. in Basic Sciences with CGPA 7.0 or 65 percent marks in relevant disciplines. For applicants with valid GATE/NET/GPAT score, requirement may be relaxed by maximum 0.5 CGPA or 5% marks.
- d) M.B.B.S. / B.V.Sc. with CGPA 6.5 or 60 percent marks or 1st class.

Besides, applicants having the following qualification are also eligible for Executive PhD Programme in Management and Humanities & Social Sciences:

- e) M.A. / MBA / M.Com. / M. Sc. in Humanities and Social Sciences or Management with at least 6.5 CGPA or 60 percent marks or 1st class and B.A. / BBA / B.Com. / B. Sc. with at least 6.5 CGPA or 60 percent marks or 1st class.

Relaxation –

- a) Relaxation of 0.5 in CGPA [5 percent in marks] may be considered in the qualifying degree for the Group-A officers of Central/State Govt./Autonomous Bodies, faculty and Group-A officers of Central/State Universities/CFTIs, positions in private sectors having annual CTC equal to annual gross pay at the minimum pay scale in Level – 10 of 7 CPC Pay Matrix, who have at least 5 years of experience as on **30th June 2020**.
- b) Less than 6.5 CGPA [60 percent marks] in 10th and/or 12th will be accepted without qualifying in NET/GATE/any other examination.
- c) Less than 6.5 CGPA [60 percent marks] in B.A. / BBA / B.Com. / B. Sc. / B.E. / B. Tech. / B. Pharm. / M. Sc. / MCA will be accepted if the same is not the minimum qualifying degree of [i.e. in case of (a), (c) and (e) above] for applicants who have qualified in NET/GATE/GPAT/any other examination in any year (validity not mandatory).

In addition to the above eligibility criteria (based on minimum qualification), following additional criteria will also be applicable:

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

- b) Science students admitted to PhD program 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.
- c) A student should have passed Life Science or Biological Science either in +2 or +3 level for admission to PhD in Life Science department.
- d) 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 and specializations for various departments is given below.

However, a higher selection criteria (may be different for different departments) may be set by the Departments during scrutiny of applications depending on the number and quality of applications. Therefore, mere fulfillment of the minimum eligibility criteria does not guarantee an applicant to be called for test/interview and/or grant of admission.

Qualifying Degrees and Primary Disciplines for Executive PhD Programme

Qualifying Degrees and relevant primary disciplines for admission to Executive PhD Programme of various departments will be as mentioned against respective departments in the following table.

Department	Academic Eligibility / Primary Disciplines for Executive PhD
Biotechnology and Medical Engineering (BM)	A Master's degree in Engineering (any branch) / Medicine / Dental / Pharmacy / Veterinary OR a bachelor's degree in Engineering (any branch) / Medicine / Dental / Pharmacy / Veterinary OR a M.Sc. degree in Biotechnology / Life Sciences / Physics / Chemistry / Allied Sciences with 1 st class in UG and PG degree
Civil Engineering (CE)	M.Tech. in Civil / Mining / Mechanical / Agricultural / Chemical Engineering OR B.Tech in the above disciplines
Chemical Engineering (CH)	B.E./ B.Tech or M.Tech. in Chemical / Mechanical / Metallurgy / Materials Science / Biotechnology / Biochemical / Petroleum and Petrochemical / Cryogenics / Electronics & Communication / Environmental 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. / M.Tech in Computer Science & Engineering / Information Technology OR MCA OR M.Sc. in Computer Science / Information Technology.
Chemistry (CY)	M.Sc. in Chemistry / Physics / Biochemistry / Biotechnology / Nanoscience & Nanotechnology / Bioinformatics / Industrial Chemistry / Applied Chemistry / Environmental Chemistry / Food Science & Technology / Nutrition OR M.Pharm. OR B.Tech / M.Tech in Chemical / Ceramic / Metallurgical and Materials Engineering / Biotechnology.
Electronics & Communication Engineering (EC)	B.Tech. / M.Tech in Electronics / Electrical / Electronics & Communication / Electronics & Telecommunication / Electronics & Instrumentation / Applied Electronics & Instrumentation / Electrical and Electronics Engineering.

Electrical Engineering (EE)	B.E./ B.Tech. / M.Tech / M.E. in Electrical / Electronics / Electrical & Electronics / Electronics & Communication / Instrumentation Engineering / Instrumentation Control, Control & Automation / Signal Processing
Earth & Atmospheric Science (ER)	M.Sc / M.Tech in Geology / Applied Geology / Geophysics / Environmental Science / Remote Sensing / Chemistry / Physics / Atmospheric Science / Meteorology / Oceanography / Mathematics OR related disciplines in Science OR B.Tech / M.Tech in Civil / Mining / Electronics and Computer Science Engineering
Food Process Engineering (FP)	B. Tech with M.Tech in Food Processing Engineering / Food Technology / Agricultural Process Engineering / Post Harvest Engineering / Agricultural Engineering or any other relevant branch of Engineering/Technology
Humanities and Social Sciences (HS)	M.Sc. / MA in relevant subjects OR B.Tech / M.Tech in any branch of Engineering OR MBA.
Industrial Design (ID)	B.Des./BE/B.Tech with M.Des/ME/M.Tech in any discipline
Life Sciences (LS)	M.Sc. in Life Sciences / Botany / Zoology / Microbiology / Biotechnology / Biochemistry / Bioinformatics / MBBS / BVSc./ Bio-Physics / Food Science & Technology, B.Tech / Integrated M.Tech / M.Tech in Biotechnology or any branch of biological sciences, B.Pharm./M.Pharm., MS in any branch of biological sciences.
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
Mechanical Engineering (ME)	B. Tech. / MTech in Mechanical / Machine Design / Thermal / Cryogenics / Mechatronics / Robotics / Mechanical Vibrations / Automobile / Production / Manufacturing / Industrial Management / Aerospace / Aeronautical / Composites / Tribology / Fluid Flow and Heat Transfer
Metallurgical & Materials Engineering (MM)	B.Tech / M.Tech in Mechanical / Machine Design / Thermal / Cryogenic / Mechatronics / Robotics / Mechanical Vibrations / Automobile / Production / Manufacturing / Industrial Management / Aerospace/ Aeronautical Engineering / Composites / Tribology / Fluid Flow and Heat Transfer.
Mining Engineering (MN)	B.Tech/M.Tech in Mining / Civil / Environmental / Chemical / Electronics / Electrical / Instrumentation / Computer Science / IT / Mechanical / Metallurgical & Materials Engineering OR M.Sc. in Geology / Geo-Physics / Environmental Science / Remote Sensing / Mathematics / Statistics / Chemistry / Physics.
Planning & Architecture (PA)	B.Arch. with M.Arch. / MCP / MURP / MUP / MTRP / M.Tech. or equivalent.
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.

Eligibility for Part-Time MBA Programme

BE / B. Tech. / B.Arch. / B. Pharm. / MBBS / BVSc. / B. Sc. / BCA / B. Math. / B. Stat. **OR** BA / B. Com. / BBA with Major/Hon's in Mathematics / Statistics / Economics / Accounting / Finance with at least 6.5 CGPA or 60 percent marks or 1st class **OR** CA/CWA/CMA/CS/CFA.

AND 2 years of post-qualifying degree work experience as on **30 June 2020**.

Eligibility for Part-Time MTech Programme

Qualifying Degree and relevant Branch/Discipline as given below with at least 6.5 CGPA or 60 percent marks.

Department	Specialisation	Qualifying Degree and Branch/Discipline
Inter Disciplinary	--	BE / B. Tech. in any branch of Engineering
Civil Engineering	Geo-Technical	BE / B. Tech. in Civil Engineering / Civil Technology / Civil Engineering and Planning
	Structural	BE / B. Tech. in Civil Engineering / Civil Technology / Construction Engineering / Construction Technology / Structural Engineering / Applied Mechanics / Civil Engineering and Planning
Chemical Engineering	Coal Chemicals & Cryogenics	BE / B. Tech. in Chemical Engineering / Chemical Technology
Computer Science & Engineering	Computer Science	BE / B. Tech. in Computer Science & Engineering / Information Technology OR MCA OR M. Sc. in Computer Science / Information Technology
Electronics & Communication Engineering (EC)	Electronics & Instrumentation	BE / B. Tech. in any branch relating to Electronics/Instrumentation/Electrical Engineering
Electrical Engineering (EE)	Industrial Power Control & Drives	BE / B. Tech. in any branch relating to Electrical Engineering
Mechanical Engineering (ME)	Thermal Engineering	BE / B. Tech. in Aeronautical Engineering / Aerospace Engineering / Chemical Engineering / Mechanical Engineering
Metallurgical & Materials Engineering (MM)	Steel Technology	BE / B. Tech. in any branch of Engineering

Equivalent Degree / Specialization / Discipline

In the case of applicants not having exact Degree / Specialisation / Discipline as mentioned above, but who claim to have an equivalent Degree / Specialisation / Discipline, onus of proving equivalency shall lie with the concerned applicant(s) by submitting applicable notifications issued by any Government controlling/regulatory body like MHRD, UGC, AICTE, etc. Any notification and/or certification from the Institute/University/College of the applicants will not be acceptable. However, decision of the Institute shall be final and binding in this matter.

Applicants Awaiting Results

Applicants awaiting result of their qualifying degree are NOT ELIGIBLE for admission to Executive and Part-Time Programmes.

Residential Requirement / Class Timings

Students of Executive Ph.D Programme need to attend classes for 5 days per course during every semester till completion of course work and thereafter minimum 10 days each during every subsequent semester till their Synopsis Seminar. Accommodation in Hostel / Guest House may be provided subject to availability and on payment basis.

Classes for Part-Time MTech and Part-Time MBA Programmes will be held for three hours in the evening [1800 hrs to 2100 hrs] for five days a week [Monday to Friday]. Number of total classes per course, Time Table, minimum attendance requirement, etc. will be notified in due course. No accommodation will be provided to students of Part-Time Programmes.

Special Notes

- a) All educational qualifications must be from Govt. recognized Board/University/Institute only. In case of any doubt raised by the Institute, onus of proving validity of the qualification shall lie with the concerned applicant. However, decision of the Institute shall be final in this regard.
- b) Applicants with any other relevant background may be considered only with specific approval of the Senate or Chairman, Senate on the recommendation of the Selection Committee.
- c) There is no relaxation in academic requirement for SC/ST/OBC/PH/PWD students, because the minimum academic requirements have been set to meet the basic challenges of the academic program. Also, the academic eligibility shall be same across all studentship categories (Institute fellowship, External fellowship, Project fellowship, Sponsored, etc.).
- d) Rule for conversion from CGPA to percentage or vice-versa, if prescribed by Degree Issuing Institute/University will be accepted. However, if no such rule is prescribed by Degree Issuing Institute/University, conversion will not be allowed.
- e) Students of one discipline may seek admission in a related department which will be considered by the Selection Committee on the basis of merit of the individual case(s).
- f) Selection will be made on the basis of academic record, relevance of qualification and/or experience. Therefore, merely application will not guarantee admission.
- g) If required, any or all the departments may conduct a selection test and/or interview to judge further suitability of the applicants.
- h) Selection Criteria may be different for different departments.
- i) Part-Time Programme students must be located within short geographical jurisdiction of Rourkela to make it feasible for them to attend the classes regularly.
- j) All or any particular Programme may not be conducted at the discretion of the Institute and if so decided, no liability will be assumed except refund of the Application Processing Fee without interest to the concerned applicants on or before **30th September 2020**.

Fee Structure

Fee Structure in Rs. for Executive PhD and Part-Time MTech/ MBA Programmes [2020-21] will be as follows:

Sl. No.	Fee Head	Part-Time Programmes			Executive Ph.D
		M. Tech.	MBA	PhD and MTech(R)	
[A]	One-Time Fees at the time of Admission				
1	Application Fee	1000	1000	1000	1000
2	Admission Fee including hostel admission	2500	2500	2500	2500
3*	Institute Emergency Fund	10000	10000	10000	10000
4*	Caution Money (Refundable)	5000	5000	5000	5000
[B]	Semester Fees for every Semester				
1*	Tuition Fee	90000	100000	25000	25000
2	Other Fees (Examination, Library, etc.)	3000	3000	3000	3000
[C]	One-Time Fees at the time of Last Semester				
1	Thesis Processing Fee	Nil	Nil	20000	20000
2	Convocation Fee	3000	3000	5000	5000

* Fee against A-3, A-4 and B-1 will not be applicable to Institute Regular Employees joining with NOC.

Fee will be paid before admission and before commencement of every subsequent semester. Notice for payment of fees will be published in the website and may also be sent by email to the students. Late Fine of Rs. 2,000/- per month for Part-Time Programmes and Rs. 1,000/- per month for Executive Ph.D will be applicable for delay in payment of Semester Fees.

Refund of Fee

If a student withdraws/leaves himself/herself from the Institute after admission without completing the entire program, all fees paid including the caution money deposit will be forfeited by the institute. This clause is applicable only after admission but even before formal registration to the 1st semester and/or starting of classes.

Application Fee and How to Apply

Interested applicants satisfying the eligibility criteria may submit their **application in prescribed format given as Annexure** to this Notice and available in <https://nitrkl.ac.in/eptp>.

- Read this Notice completely before filling up the Application Form.
- Fill up the Application Form **ONLINE**.
- Pay Rs. 1000/- online at the end of the application form. Students need to search for **ODISHA-> EDUCATIONAL INSTITUTION -> DIRECTOR NIT ROURKELA -> APPLICATION FEE FOR EXECUTIVE PHD** and proceed with the details.

- d) The applicants have to return to the Application portal and fill up the payment details in the portal failing which their application will not be complete.
- e) However, late applications may also be accepted at the discretion of the Institute if it is possible to be included in the selection without affecting the schedule.

Entries made in the Application Form will be accepted provisionally for selection purpose. Applicants who will be selected for admission will be required to submit a set of photo copies of all educational mark sheets, certificates and work experience and all originals for verification at the time of admission. Admission offer will stand cancelled if any disqualification is detected at the time of admission.

Tentative Schedule for Application and Admission

Sl. No.	Event	Tentative Date
1	Availability of Application Form in the website in the link eapplication.nitrkl.ac.in	12.08.2020 (Wednesday)
2	Last date for online form filling	25.08.2020 (Tuesday)
3	Publication of Selection* List in the website	28.08.2020 (Friday)
4	Admission and Semester Registration	07.09.2020 (Monday) to 09.09.2020 (Wednesday)

* If any department decides to hold test and/or interview for selection, the same will be held on 04.09.2020 (Friday) and notice to this effect will be issued on 28.08.2020 (Friday).

Applicants are required to visit the “Announcement” section in the “Home Page” of the Institute website (www.nitrkl.ac.in) regularly for updates and further notifications.

Curriculum

Curriculum for the Part-Time MTech/ MBA and Executive Ph.D Programmes will be as follows. Syllabus will be made available to the admitted students by respective Faculty/Department.

1. Executive PhD

Year	Semester	Per Semester
1 st Year	I & II	3 Courses [9 Credits]
2 nd Year	III & IV	3 Units of RP [9 Credits], and 1 Unit of STW [2 Credits]
3 rd Year	V & VI	3 Units of RP [9 Credits], and 1 Unit of STW [2 Credits]
4 th Year	VII & VIII	3 Units of RP [9 Credits], and 1 Unit of STW [2 Credits]
5 th Year	IX and X	3 Units of RP [9 Credits], and 1 Unit of STW [2 Credits]
6 th Year	XI and XII	4 Units of RP [12 Credits]

RP – Research Practice, STW – Seminar & Technical Writing

2. Part-Time MTech

Year	Semester	Theory	Lab.	Research Practice	STW	Research Project	Viva
Credits per Unit →		3	2	2	2	20	4
1 st Year	I	3	1	-	-	-	-
	II	3	1	-	-	-	-
2 nd Year	III	3	1	1	-	-	-
	IV	3	1	-	1	-	-
3 rd Year	V	-	-	-	-	1	1
	VI	-	-	-	-	1	-

3. Part-Time MBA

Year	Semester	Theory	Lab.	Research Practice	STW	Research Project	Viva
Credits per Unit →		3	2	3	2	N/A	N/A
1 st Year	I	4	3	-	-	-	-
	II	4	3	-	-	-	-
2 nd Year	III	4	2	-	1	-	-
	IV	4	2	-	1	-	-
3 rd Year	V	4	1	1	1	-	-
	VI	4	1	1	1	-	-

Examination and Academic Regulation

Attendance and passing requirements, standards of instruction, examination and evaluation methods and other regulations for the Executive PhD and Part-Time MTech/ MBA Programmes will be same as for the corresponding regular programmes which will be made available in the Institute website [<https://nitrkl.ac.in/eptp>] in due course of time.

Award of Degrees

Provisional Degree and Statement of Marks will be issued immediately after publication of results. However Degree Certificate will be issued in the Annual Convocation which is normally hold on the 3rd Saturday of January.

Contact Us

Interested applicants may contact us at the following details for any query and/or further information relating to application, selection and admission to the Executive PhD and Part-Time MTech/ MBA Programmes [2020-21].

- Webpage - <https://nitrkl.ac.in/eptp>
- Email - eptp@nitrkl.ac.in
- Telephone - +91 661 246 2030 [for Application and Admission]
+91 661 246 2033 [for information on Executive PhD]
+91 661 246 2032 [for information on Part-Time MTech/ MBA]

Sd/-

Assistant Registrar (Academic)