PH.D. ADMISSION NOTIFICATION
(FULL-TIME / PART-TIME)
FOR THE
SESSION MONSOON 2021

BIRLA INSTITUTE OF TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act 1956)
MESRA, RANCHI – 835215 (INDIA)
Website: www.bitmesra.ac.in

IMPORTANT DATES

Online Application Form Starts	29th April 2021
Last date for submission of Online Application	10th June 2021
Display of shortlisted applicants for Test	14th June 2021
DATE OF ONLINE ENTRANCE TEST	17th June 2021 **(Thursday)**
Date of Interview of shortlisted applicants	18th June 2021 **(Friday)**
Declaration of Result	21st June 2021
Admission starts on	22nd June 2021

CONTACT DETAILS:

Admission Section
Birla Institute of Technology,
Mesra, Ranchi – 835 215
Tollfree: 18003457057, 18003457058
Phone: 0651-2275868
Mobile: 9508050840
E-mail: daac@bitmesra.ac.in, coa@bitmesra.ac.in, admissions@bitmesra.ac.in

For Queries, please contact:

- Dean, Postgraduate Studies through email at dpgs@bitmesra.ac.in for Ph.D. Ordinance related issues.
- Department Head for Area of Research
- Admission Officials on 0651-2275868 or 9508050840 for admission related issues.

IMPORTANT INSTRUCTIONS:

- Before applying for the program, please refer eligibility criteria.
- Apply for one department only.

HOW TO APPLY:

- To fill online application form, click on the link "APPLY ONLINE" to register for the program and create password for the application process. Do not share the password with anybody. Please see instructions for filling online application form.

- Eligible candidates must complete and submit the application form online only [link available on the Institute website www.bitmesra.ac.i

- Pay application fee of Rs.2,500/- (General / OBC candidates) and Rs.1,500/- (SC/ST candidates) through ICICI payment Gateway (candidates may use Net banking / Debit card / Credit card of any nationalized bank) till the last date of application process. **Fee once remitted shall not be refunded under any circumstances.**

MINIMUM ELIGIBILITY CRITERIA:

Candidates with following qualification shall be eligible for admission to the Ph.D. Program of the Institute:

a) Candidates possessing M.Tech. / M.E. / M.Sc. (Engg.) / M.Arch. / M.Pharm. / M.Plan./ M.Sc./ MCA / MBA or equivalent Degree in relevant branch from a recognized University/Institute with minimum 60% marks or 6.0 CGPA on a ten point scale in the qualifying examination are eligible to apply for admission in the relevant departments.

b) Candidates possessing B.Tech./B.E./B.Sc. (Engg.)/B.Pharm/B.Arch./B.Plan. or equivalent Degree in relevant branch from a recognized University/Institute with a minimum of 80% marks or 8.0 CGPA on a ten-point scale in the qualifying examination and a valid GATE/GPAT score with a minimum of 80 percentile are eligible to apply for admission in the departments as per their Specialization.
   (In this case, the candidates need to pass in more numbers of qualifying Pre-PhD papers; the concerned detail is described in Section 9.1 of Ph.D. Regulation 2018)

c) Sponsored candidates must have minimum of two years of professional work experience, besides fulfilling the above criteria. In addition, such candidates should have valid sponsorship at least for three years.

RELAXATION FOR SC/ ST CANDIDATES
Eligibility criteria will be relaxed by 5% marks for SC / ST candidates.

Note:
1. NOC from the Institute is mandatory for employees of the Institute which shall be obtained before appearing at the admission test for the Ph.D. program.
2. Employees from other organizations shall produce NOC from his/her respective employers before payment of admission fees.
3. In case of the candidates with other grade point scale, the decision of the equivalence made by the assigned committee of the Institute shall be final.

FELLOWSHIP AVAILABLE:

A limited number of Institute Research Fellowship (IRF) with a fellowship amount of Rs. 25,000/- per month for the first two years and Rs. 28,000/- per month for the next two years is available depending on the performance. The minimum marks required for IRF may vary across the departments and department wise minimum marks shall be decided by an appropriate committee. These IRFs shall be distributed based on the performance in the admission test, academic career and interview. Ph.D. admission test is mandatory for candidate aspiring for the IRF.

DEPARTMENT-WISE & SPECIALIZATION-WISE IRF POSITIONS [MESRA, Main Campus]

Fellowships are available in limited specializations. However, candidate can choose any specialization if desires to pursue Ph.D. in self-financing mode.

Sr No.	Department	Specialization	No. of IRF Available
1.	Architecture	• Urban Riverfront Development, Housing Need Assessment, Perception Studies for urban areas, Environmental Management of Peri-urban Areas, Systematic Landscaping for Reclaiming abandoned coal mines, Low-carbon city, Smart Cities, Urban Environmental Management, Vernacular Architecture. • Urban Conservation and Heritage Management, Urban and Regional Planning, Conservation Planning.	2
2.	Bio-Engineering	• Biosignal and Electrophysiology. • Secondary metabolites, enzymes, Bioprocess development, Mushroom etc. • Renewable energy, Nanotransfer fluids, Biosurfactant.	3
3.	Chemical Engineering	• Tribology of Composite Materials, Polymer Processing, Food Packaging. • Separation Technology, Molecular Simulation, Process Modeling and Simulation, Thermodynamics, Optimization. • Heterogeneous Catalysis and Reaction Engineering, Adsorption, Synthesis of Nanomaterials, Environmental pollution control (air/water purification) • Rheology of Complex Fluids, Polymer Rheology	4
4.	Chemistry	• Green Nanomaterials • Biomimetic Coordination Chemistry, Renewable Energy	2
5.	Civil & Environmental Engineering	• Env Sc, Remote sensing. • Water Resources Eng. • Water Research: Water Treatment, Wastewater Treatment, Water Quality Monitoring.	5
6.	Computer Science & Engineering	• Image Processing, Computer Vision, Pattern Recognition, Medical Imaging, Machine Learning. • Statistical Analysis of Algorithm, Data Science. • Distributed Systems, Parallel Computing, Wireless Networks, Bioinformatics, Machine Learning. • Pattern Recog., Image Process, Algorithm Design, Digital forensic, Cyber Security. • Data Mining, Software Engineering, IoT, Cloud Computing.	5

Sr No.	Department	Specialization	No. of IRF Available
7.	Electronics & Communication Engg.	• Wireless Communication, Microwave • Signal Processing, Automations • Biomedical signal processing, BCI • Image Processing • Machine Learning	5
8.	Electrical & Electronics Engg.	• Control System	1
9.	Management	• Business Ethics CSR, Marketing • Economics	2
10.	Mathematics	• Numerical Analysis, Nonlocal Boundary Value Problems, Numerical Methods for Singular Boundary Value Problems. • Differential Equations and its applications in Ecology, Environment and Biology.	2
11.	Mechanical Engineering	• Machine Design and Fluid Power • Fracture/Design • Solid Mechanics • CAD/CAM, Mechatronics, Reverse Engg.	4
12.	Pharmaceutical Science & Technology	• Pharmacology • Pharmacognosy	2
13.	Physics	• Plasma Physics • Ion Beam Mixing, Biomaterials Materials Science	2
14.	Production Engineering	• Manufacturing Engineering • Industrial Engineering • Manufacturing and Industrial Engineering	3
15.	Space Engineering & Rocketry	• Rocket Propulsion	2

Candidates willing to pursue Ph.D. in self-financing mode (without IRF) are free to choose Ph.D. area as well as supervisor.

Department-wise possible research area(s) and faculty specializations are available in Institute website www.bitmesra.ac.in under department profile.

DEPARTMENTS OFFERING PH.D. PROGRAM:

1. Architecture
2. Bio-Engineering **(Disciplines – Biotechnology and Bio-Medical Engineering)**
3. Chemical Engineering **(Disciplines – Chemical Engineering, Polymer Engineering and Food Technology)**
4. Chemistry
5. Civil & Environmental Engineering **(Disciplines – Civil Engineering and Environmental Science)**
6. Computer Science & Engineering
7. Electrical & Electronics Engineering
8. Electronics & Communication Engineering
9. Management
10. Mathematics
11. Mechanical Engineering
12. Pharmaceutical Science & Technology
13. Physics
14. Production Engineering
15. Remote Sensing
16. Space Engineering & Rocketry

SELECTION PROCEDURES:

Selection in the Ph.D. program shall be based on performance in an Online Entrance Test, Previous academic career and an Interview. Only such candidates, who obtain the minimum required marks in Online Entrance Test and the indicated total percentage of marks, will be considered for final preparation of result as given below:

Group-A:

Category of applicant	Online Entrance Test (100) [Min % requirement]	Academic Record (60)	Interview (40)	Total (200) [Min % requirement]
General	30%	-	-	45%
SC / ST	25%	-	-	40%

Group-B:

Category of applicant	Online Entrance Test (40) [Min % requirement]	Academic Record (60)	Interview (100)	Total (200) [Min % requirement]
Sponsored	30%	-	-	45%

Note: Upto 20% of the selected candidates for admission to the respective Department may be allotted to Part-Time candidates depending upon their position in the merit list.

SCHEDULE FOR ONLINE ENTRANCE TEST & INTERVIEW:

Date of Online Entrance Test:

Date: 17.06.2021

Time: 10:00 AM to 11:00 AM IST (1-hour duration)

Pattern of question: Multiple Choice

Total no. of questions: 50 (2 marks for each correct answer). There will be no negative marking.

Admission to Ph.D. will be of two stage process:

1) Ph.D. Entrance Test (PET) and

2) Personal Interview (PI).

- The online entrance test for the Ph.D. program shall be multiple choice questions for 100 marks (30 marks of General and 70 Marks of Applied Subject/ Domain/Department Specific) and for the duration of one hour. The type of multiple-choice questions will follow the sample pattern of NET and GATE/GPAT. There will be no negative marking.

- The Online Entrance Test shall be conducted through online platform.

- You may join the test from your Computer, Tablet or Smartphone by using the link which will be shared with you by email before schedule time.

- The candidate will of its own cost will appear the Computer based test either from home or any suitable place or on your discretion and maintain the sanity of Examination.

- The Institute will be not responsible for any kind power failure/low bandwidth/web browser compatibility/sudden shutdown of Computer or Mobile/etc. while a candidate appearing the Test.

Date of Interview:
[Through video conferencing / Google Meet by the concerned Dept.]
The interview process of the selected candidates will be conducted as per the schedule given below:
[Only such candidates who obtain the minimum requisite marks in Online Entrance Test will be considered for an interview, as given in selection procedure above].

Date: 18.06.2021
Time: SLOT -1: 10 AM to 1 PM, SLOT-2: 2 PM to 5 PM IST

- The interviews of the shortlisted applicants will be conducted online through video conferencing / Google Meet as per the schedule given above.
- You may join the interview from your **Computer, Tablet or Smartphone** by using the link which will be shared with you by email any time during the time slot given.

EXEMPTION FROM THE ENTRANCE TEST:

Those with UGC-CSIR/DBT/BINC/ICMR-JRF and all other similar all India fellowships based on a written test for Ph.D. admission may be exempted from the Entrance Test but will be required to appear in the interview.

Note: Candidates will not be entitled to get any kind of financial assistance from the Institute.

DOCUMENTS REQUIRED:

All candidates are advised to get ready with the following supporting documents in original while interview process and during verification of documents at a later stage along with a set of photocopies of the same.

1. Pass certificate and Marksheet of Class 10 (bearing date of birth)
2. Marksheet of Class 12 / Intermediate or equivalent
3. Certificate and Marksheets of Graduation
4. Certificate and Marksheets of Post-graduation
5. College Leaving Certificate
6. Migration Certificate
7. **Candidates with qualifications acquired through correspondence or distance-learning programs are eligible only if (a) they acquired such qualifications as working professionals / while in employment, (b) the programs are recognized by the DEC- UGC-AICTE or MHRD, (c) they have passed the qualifying examination at the time of applying, with minimum requisite marks as given in eligibility criteria. They must enclose photocopies of (i) work experience certificate (ii) pass certificate and marksheets of qualifying examination (iii) proof of the program recognized by the DEC-UGC-AICTE or MHRD in letter head of the Institute/College /University, with their application.**
8. UGC-CSIR/DBT/BINC/ICMR-JRF and all other similar all India fellowships based on a written test for pursuing Ph.D. Admit card and Score card (if applicable)
9. Caste certificate / special category certificate (if applicable) in proper format, signed by appropriate authority.
10. Sponsorship letter, NOC, Experience Certificate and Facilities available to carry out the research work at their place of working (if applicable) for Sponsored / Part- Time candidates.

All candidates belonging to the SC and ST categories must note and obtain caste certificates which should be in proper format and should be signed by appropriate authority of rank not less than SDO.
(Note: Final reservation proportion will depend on notification, if any, issued by competent authority and as accepted by the Institute). Candidates belonging to Persons with Disability [PwD] category must send photocopy of relevant certificate(s) in proper format signed by appropriate authority.

The Admissions Office / concerned Departments may not undertake detailed scrutiny of applications before verification of documents, and all shortlisted applicants called for Test are allowed to appear in the Test on purely provisional basis, subject to their eligibility being verified at the time of interviews. Merely being allowed to appear in the Test will not be considered as a ground for being eligible for admission to the Ph.D. program. Further, mere submission of application form does not entitle a candidate to appear for the Test.

RESIDENTIAL REQUIREMENTS:

The residential requirement is essential to build the research atmosphere in the Institute. The residential requirement for part-time Ph.D. candidates shall be a minimum period of one semester at the Institute for the candidates having PG degree and two continuous semesters at the Institute for the candidates having B.Tech./B.E./ B.Sc. (Engg.) /B.Pharm/B.Arch./B.Plan. or equivalent Degree. However, for full time scholars, the minimum residential requirement is of six semesters.

FEE STRUCTURE:

S.No.	Description	Fee (INR) Main Campus / Off Campuses	Remarks
1.	Admission Fee	5000.00	Payable at the time of admission
2.	Infrastructure Fee (One time non-refundable)	20000.00	Payable at the time of admission
3.	Caution Money (Refundable)	10000.00	Payable at the time of admission
4.	Registration Fee for Pre-Ph.D. Qualifying Examinations	2000.00 (per course)	Payable at the time of registration for the Pre-Ph.D. Qualifying Examination
5.	Semester Fee: Full-time Research Scholar	20000.00	Payable in each semester at the time of admission and registration
	Part-time Research Scholar (Employees of BIT)	20000.00	
	Sponsored / Part-time Research Scholar (External)	40000.00	
6.	Thesis Submission Fee	20000.00	Payable at the time of submission of thesis

Refund rules for the Ph.D.program:

• If a student withdraws / leaves the Institute for any reason in the mid-session without completing the entire program, all fees paid including the caution money will be forfeited by the Institute.

• If a student with fellowship (Institute / QIP / Project / External) withdraws / leaves the Institute in the mid-session without completing the program, the entire amount paid to him / her towards fellowship need to be returned by the student before leaving the Institute.

NUMBER OF SEATS AVAILABLE
MESRA [Main Campus]

Sl No.	Department	No. of vacancies
1.	Architecture	14
2.	Bio-Engineering	22
3.	Chemical Engineering	30
4.	Chemistry	25
5.	Civil & Environmental Engineering	13
6.	Computer Science & Engineering	27
7.	Electrical & Electronics Engineering	5
8.	Electronics & Communication Engineering	30
9.	Management*	1
10.	Mathematics	13
11.	Mechanical Engineering	12
12.	Pharmaceutical Science & Technology	15
13.	Physics	12
14.	Production Engineering	13
15.	Remote Sensing	2
16.	Space Engineering & Rocketry	10

* Area of Research – Industrial Management, Marketing, HR, IR, OB, Finance, SCM, Business Analytics, Economics, Business Ethics, CSR, Information Systems, Technology / Quality Management.

Note: Upto 20% of the selected candidates for admission of the respective Department may be allotted to Part-Time candidates depending upon their position in the merit list.

OFF CAMPUSES:

Sl No.	Campus	Department	No. of vacancies	Area of research available in the Dept of Management at Off Campuses
1	Deoghar	Chemistry	2	-
		Computer Science & Engg.	8	-
		ECE	8	-
		EEE	1	-
		Mechanical Engineering	3	-
		Mathematics	6	-
		Physics	6	-
		Production Engineering	2	-
2	Jaipur	Chemistry	2	-
		Computer Science & Engg.	17	-
		EEE	6	-
		Management	5	HRM, Marketing and IB
		Mathematics	6	-
		Physics	6	-
3	Noida	Computer Science & Engg.	5	-
		Management	14	HRM, OB, KM, Marketing, Finance and Comm., Media, Gender Diversity
		Mathematics	6	-
4	Patna	Chemistry	4	-
		Civil Engineering	9	-
		Computer Science & Engg.	7	-
		EEE	5	-
		ECE	9	-
		Management	13	Economics, HR & Marketing
		Mechanical Engineering	8	-
		Physics	8	-
		Production Engineering	4	

Note: Upto 20% of the selected candidates for admission of the respective Department may be allotted to Part-Time candidates depending upon their position in the merit list.

Enrollment Form for Ph.D. Program

Date:_____

To
The Vice Chancellor
Birla Institute of Technology
Mesra, Ranchi – 835215

Through: The Dean, Postgraduate Studies (PGS)

Dear Sir/Madam,

1. I have been admitted to the Ph.D. Program of the Institute in Department of ………………………………………. I am enclosing herewith my biodata for your kind perusal and needful.

2. My proposed field of research will be:
(a) Discipline:_____

(b) Field of Research work: _____

(c) Name of the Guide: _____

(d) Proposed Course work:

Theory		Term Paper	
Code	Subject	Code	Subject

3. The No Objection Certificate from my organization (for part - time research scholar only) is attached herewith. The certificate for providing the required research facilities by my organization/institution is also attached herewith.

4. I certify that the particulars given above are correct and I undertake to
   a) Abide by the Rules of the Institute during the Ph.D. Program.
   b) Appear before the relevant Admission Committee whenever directed to do so.
   c) Take any test or qualifying examinations as specified for the Ph.D. program.

5. The proof of my date of birth, caste (General/OBC/BC/SC/ST) and qualifications are attached.

6. I shall also comply with residential requirement specified for the Ph.D. program.

Thanking you
Yours faithfully,

Signature: _____

Name: _____   Roll No. _____

Approved / Recommended / Comments _____

Chairperson (DAC/OAC):_____