



डा बी आर अम्बेडकर राष्ट्रीय प्रौद्योगिकी संस्थान, जालन्धर—144011

Dr B R AMBEDKAR NATIONAL INSTITUTE OF TECHNOLOGY, JALANDHAR - 144011

## **Admission to PhD (Full Time) Programme in Engineering, Sciences, Humanities and Management for the Academic Year 2017-2018 (Session July-2017)**

Applications are invited for admission to PhD (Full Time) Programme in Engineering, Sciences, Humanities and Management for the Academic Year 2017-2018 (Session July-2017). The Broad areas of research, Eligibility Criteria, Selection Procedure, Reservation, Teaching Assistantship-cum-Scholarships etc. are given in this advertisement.

**How to apply:** The link to fill the online application form can be accessed through institute website [www.nitj.ac.in](http://www.nitj.ac.in). Please submit separate application forms, if applying for more than one programme. Copy of the application forms duly filled, accompanied by self-attested copies of the relevant certificates/testimonials, along with details of Application Fee of **Rs.1000/- (Rs.500/- for SC/ST candidates)** paid by bank transfer through NEFT, in an envelope which must be superscribed as, "APPLICATION FOR ADMISSION TO PhD (FULL TIME) IN THE DEPARTMENT OF \_\_\_\_\_," should reach the **concerned 'Head of the Department'** by the due date as per schedule given in this advertisement. Candidates can only pay the Application Fee by bank transfer through NEFT to the Institute Bank Account, details of which are provided below:

Account Name: **Director, Dr B R Ambedkar National Institute of Technology, Jalandhar**

Account Number: **55088193207**

Bank: **State Bank of Patiala**

Branch: **REC, Jalandhar**

IFSC Code: **STBP0000841**

For more details, the candidates are advised to visit the Institute website [www.nitj.ac.in](http://www.nitj.ac.in) for updates.

Incomplete applications and received after due date without application fee as applicable/attested copies of documents/certificates/testimonials **(5:00 PM of 22<sup>nd</sup> May 2017)** shall be rejected during scrutinizing and application fee shall not be refunded.



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**Dr B R AMBEDKAR NATIONAL INSTITUTE OF TECHNOLOGY, JALANDHAR - 144011**

**Admission to PhD (Full Time) Programme for the Academic Year 2017-2018 (Session July-2017)**

**A) Admission under financial support from NIT Jalandhar:**

SNo	Department Email address of HOD	PhD (Full Time) (Broad Areas of Research of the Supervisors who have given their willingness to supervise a suitable Research Scholar)	Expected No. of Supervisors available for sole supervision in the respective departments with stipend-cum-teaching assistantship under Institute support
1.	Chemical Engineering <a href="mailto:och@nitj.ac.in">och@nitj.ac.in</a>	Wastewater Treatment, Air Pollution Control	01
		New and Renewable Energy	01
2.	Civil Engineering <a href="mailto:oce@nitj.ac.in">oce@nitj.ac.in</a>	Geotechnical and Geoenvironmental Engineering, Ground Improvement, Recycled Waste	01
3.	Computer Science & Engineering <a href="mailto:ocs@nitj.ac.in">ocs@nitj.ac.in</a>	Computer Networks, Information Security & Scientific Computing,	01
		Digital Image Processing, Document Image Analysis, Natural Language Processing	01
4.	Electronics & Communication Engineering <a href="mailto:oc@nitj.ac.in">oc@nitj.ac.in</a>	Signal Processing, Communication Systems, Cognitive Radio and SDRs	01
5.	Instrumentation & Control Engineering <a href="mailto:oi@nitj.ac.in">oi@nitj.ac.in</a>	Wireless Sensor Networks & its applications, smart sensing/control-computing systems, Intelligent Virtual Instrumentation	01
		Soft Computing, Power Systems	01
6.	Industrial & Production Engineering <a href="mailto:oi@nitj.ac.in">oi@nitj.ac.in</a>	Quality Management	01
7.	Mechanical Engineering	Fatigue of Composite Materials	01
8.	Textile Technology <a href="mailto:ot@nitj.ac.in">ot@nitj.ac.in</a>	Textile Chemical Processing, Enzymatic Processing of Textiles, Waste Water Management in Textiles	01
		Medical Textiles, Technical Textiles	01
		Garment Comfort	01
9.	Humanities & Management <a href="mailto:oh@nitj.ac.in">oh@nitj.ac.in</a>	Linguistics – Sociolinguistics, Language Change, Multilingualism	01
10.	Physics <a href="mailto:op@nitj.ac.in">op@nitj.ac.in</a>	Theoretical Plasma Physics - Laser Plasma Interactions	01
		Nuclear Physics	01
		Nanomaterials, Carbon Nanomaterials, Nanotechnology	01
		Condensed Matter Physics (Liquid Crystals)	01
		Theoretical High Energy Physics	01
11.	Chemistry <a href="mailto:oc@nitj.ac.in">oc@nitj.ac.in</a>	Carbon Based Nano Composites, Environmental Chemistry, Surface Chemistry	01
		Ionic Liquids, Green Chemistry Solution Thermodynamics	01
12.	Mathematics <a href="mailto:om@nitj.ac.in">om@nitj.ac.in</a>	Applied Mathematics (Solid Mechanics, Thermoelasticity)	01
		Mathematical Modeling and Analysis in thermoelastic continua with different structures	01
		Sampling Techniques (Statistics)	01

**B) Admission under JRF/scholarship/financial support from some government agency:**

**Note: Candidates with the award of JRF/scholarship/financial support from some government agency other than NIT Jalandhar stipend-cum-teaching-assistantship for pursuing Ph.D. programme may also apply for admission to Ph.D. programme in the following department. Only those candidates need to apply, who have been awarded JRF/scholarship/financial support from some government agency on the date of submission of application form:**

SNo	Department Email address of HOD	PhD (Full Time) (Broad Areas of Research of the Supervisors who have given their willingness to supervise a suitable Research Scholar)	Expected No. of Supervisor s available for sole supervision in the respective departments under JRF/scholarship/financial support from some government agency
1.	Electronics & Comm. Engg	Nanoscale Semiconductor devices and Low Power VLSI Design	01
2.	Humanities & Management	Business Management, Entrepreneurship Development, Marketing Management, Human Resource Management	01
3.	Physics	Laser Plasma Interaction	01
		Nuclear Physics	01
		Radiation Physics/Nuclear Physics	01
		Nanomaterials	01
		Particle Physics	01
		Liquid Crystals	01
		Experimental Condensed Matter Physics	01
4.	Chemistry	High Energy Physics	01
		Material and Synthetic Chemistry	01
		Carbon based Nano composites, Environmental Chemistry Surface Chemistry	01
		Smart Polymers, Nano Chemistry, Mechanistic Organic Chemistry, Solution Thermodynamics	01
		Ionic Liquids, Green Chemistry, Solution Thermodynamics	01
		Synthetic Organic Chemistry, Nanocatalysis, Advance materials and sensors	01
		Nanocatalysis, Green synthesis of nanomaterials, Environmental nanotechnology, Nanocomposites, Environmental Chemistry	01
Organic Synthesis and Heterocyclic synthesis Transition-Metal assisted C-C and C-N coupling reactions (A <sup>3</sup> -coupling, Synthesis of Bioactive natural products and their mimics, Morita-Baylis-Hillman Chemistry and methodology development, Nanoparticles and their application in organic synthesis, Green Chemistry, N- Heterocyclic Carbene Chemistry, and synthesis of heterocycles of pharmacological interest, Organocatalysis and synthesis of chiral auxiliaries used for asymmetric synthesis Medicinal Chemistry, Synthesis of anticancer, antidiabetic (Type-II) and anti-infective Agents	01		

**Note: Eligibility criteria and admission procedure under JRF/scholarship/financial support from some government agency Candidates shall remain same.**

### C) Eligibility Criteria

- **Engineering Departments (Sr.No.A(1 to 8) and B(1)):** Master's Degree in Engineering/Technology in the relevant area of research along with Bachelor's Degree in appropriate branch of Engineering/Technology with a first class or minimum 60% marks (or CGPA of 6.5 on 10 point scale) in the qualifying examination.
- **Science Departments:** Master's Degree in appropriate branch of Science with a first class or minimum 60% Marks (or CGPA of 6.5 on 10 point scale) in the qualifying examination.
- **Humanities & Management:** Master's degree in Management/related areas of Management (Commerce, Public Administration, Engineering Law, Mathematics, Statistics, Psychology, Economics, Business Economics, Sociology etc.) with;
  - i) 60% Marks (or CGPA of 6.5 on 10 point scale) in the qualifying examination in Management.
  - ii) 55% marks in Humanities or Social Sciences (or a CGPA of 6.0 on 10 point scale)

Candidates for PhD admission in Sciences departments must be NET/GATE qualified and in Humanities and Management must be UGC-NET qualified for the award of stipend cum teaching assistantship as per Ministry of HRD norms.

*(Relaxation in minimum Percentage/Equivalent Grade Point requirements will be given as per the National Reservation Policy of Government of India).*

### D) Admission Procedure

- i. The admission to Ph.D programme (Full Time) in all disciplines mentioned in this advertisement shall be made purely on the basis of a "presentation" to be made by the shortlisted applicants in their proposed area of research followed by "interaction" to be conducted by the respective Department Admission Committee.
- ii. Shortlisting of candidates shall be done by Departmental Admission Committee for the process of "presentation and interaction" for the applicants. For this purpose, a screening test shall be conducted by the respective departments. Only those applicants who score marks above the cutoff of 40%, i.e. 24 marks out of 60 for General category candidates, and 35% i.e. 21 out of 60 for SC/ST/OBC candidates in the screening test shall be eligible for presentation and interaction process. Marks obtained in the screening test shall not be counted for preparation of final merit list of the successful candidates.
- iii. The Department Admission Committee for each department shall recommend the suitable candidates for admission based on its assessment of presentation and interaction.
- iv. Merely shortlisting of an applicant does not confirm admission to Ph.D. programme. The admission shall be solely based upon performance of individuals during "presentation and interaction". The Department Admission Committee/Institute reserves the right not to recommend any candidate for admission to PhD in the respective department if the performance of the shortlisted candidates is not found satisfactory during "presentation and interaction". The decision of Department Admission Committee (approved by the competent authority of the Institute) shall be final.
- v. The merit list of the selected candidates (based on presentation & interaction) shall be prepared on marks basis. A candidate who scores less than 40 marks (out of 100) for "presentation & interaction" shall not be considered "qualified" for admission to PhD programme and his/her name shall not be recommended for admission by Department Admission Committee.

### E) Other Issues

- i. An applicant is required to apply on different application forms in case he/she wants his/her candidature to be considered in more than one department.
- ii. Category (General/OBC/SC/ST) once chosen by the applicant in his/her application form shall not be changed at a later stage. Candidate(s) claiming any reservation category (OBC/SC/ST) and also General category should apply on separate application forms for the purpose.
- iii. OBC Certificate must have been issued on or after **01 January 2017** so that the candidates from creamy layer are identified. No certificate issued before this date shall be acceptable.
- iv. Submission of Result of Qualifying Examination and other documents: For candidates whose result of qualifying examination is awaited, they shall be given provisional admission after an undertaking that

they shall submit the result upto **30<sup>th</sup> September 2017**, failing which their admission shall automatically stand cancelled.

- v. Certificate Checking: The certificates (in original) of all the candidates recommended for admission shall be checked by the individual department before deposition of fee by the candidates.
- vi. The candidate (in service) applying for full-time PhD programmes need to apply through proper channel. Any application without “No Due Certificate” from the employer shall not be considered for shortlisting.
- vii. The application without application fee as applicable/attested copies of documents/certificates/testimonials shall be rejected and shall not be considered for shortlisting.

**F) Reservation**

The reservation rules will be followed as per Government of India guidelines prevailing at the time of admission, at the Institute level (i.e. 50.5% for General, 27% for OBC, 15% for SC and 7.5% for ST category). The reservation shall be observed at Institute level and not at individual department level.

**G) Teaching Assistantship-cum-Scholarships**

In case of Engineering and Sciences, the rate of stipend shall be as per Ministry of Human Resource Development (MHRD) F.No.17-2/2014-TS.I dated 2nd March 2015, while in case of Management/Humanities streams, the rate of stipend will be as per UGC norms as per MHRD letter F.No.33-4/2016-TS-III, Dated: 1.12.2016).After the admission in Ph.D. programmes at NIT Jalandhar, stipend cum teaching assistantship (from the Institute under support from MHRD) shall be offered to those admitted Full Time Research Scholars only, who are having:

- (i) Post Graduate Degree in Engineering/Technology at the time of admission (for engineering departments) or
- (ii) Post Graduate Degree in Science / Mathematics and have qualified GATE/NET examination (for sciences departments) or
- (iii) Post Graduate Degree in Humanities/Management and have qualified UGC-NET Examination (for Management/Humanities streams).
- (iv) In case, the admission is done under some project grant/financial support from other funding agencies, the relevant rules of the funding agency shall be implemented for the disbursement of stipend/scholarship. No financial assistance shall be given by the Institute in such cases. All other criterion of admission to Ph.D. programmes shall remain same for these candidates.
- (v) Stipend-cum-teaching assistantship for Research Scholars (admitted to the appropriate discipline under Institute support/JRF/scholarship/financial/support from some government agency) shall be started from the date when the admitted candidate submits the degree/provisional degree/result of his/her qualifying examination (**latest by 30<sup>th</sup> September 2017**).

**H) Important Dates**

S No	Activity	Date
1.	Last date for submission of Applications	22.05.2017
2.	Display of list of eligible candidates	26.05.2017
3.	Written Test (in the respective Department. Reporting time 9:00 AM)	19.07.2017
4.	Display of list of candidates eligible for presentation& interaction	19.07.2017 by 4:00 PM in the respective departments
5.	Presentation/ interaction by the candidates who have qualified the test	20.07.2017 and 21.07.2017
6.	Display of list of selected candidates	26.07.2017
7.	Deposition of fee& Registration	27.07.2017
8.	Last date of deposition of fee, registration and commencement of classes	31.07.2017

All the dates mentioned above are tentative subject to change at any stage by the competent authority. All the candidates interested in seeking admission are requested to kindly see the website regularly for updates.