

**INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI
TIRUPATI – 517 506**

Advertisement No: IITT/MS/PhD-03/2018 dated 18-03-2018

Admission to M.S. (Research) and Ph.D Jul-2018 Semester

Indian Institute of Technology Tirupati is the first among the 3rd phase of IITs, to have its foundation stone laid in March 2015. Presently, it is operating from a temporary campus on Tirupati – Renigunta Road and plans are well underway to setup its own campus (about 530 acres) in the coming 2 to 3 years in Merlapaka Village, Yerpedu Mandal, Chittoor District, and A.P.

Applications are invited for admission to M.S. (Research) and Ph.D Programme starting for the Semester July 2018, as per details given below:

Doctor of Philosophy (Ph.D.)

Research Areas

1. Engineering

Civil Engineering:

Geotechnical Engineering, Structural Engineering (Structures / Materials), Hydrology and Water Resources Engineering, Transportation Engineering (Materials / Systems), Environmental Engineering.

Computer Science & Engineering:

Software Engineering, Computing for Education, Internet of Things, Software Defined Networking, Wireless Networks, Machine Learning Algorithms & Applications, Algorithmic Engineering, Advanced Data Structures & Algorithms, Parallel Computing, and Route-Planning Algorithms.

Electrical Engineering:

Signal and Image Processing, Medical Image Analysis, Computer Vision and Machine Learning, Semiconductor Devices, Control and Robotics, Measurements & Instrumentation, Communication and Networks.

Mechanical Engineering:

Fluids and Thermal Engineering, Solid Mechanics and Design, Manufacturing Science.

2. Sciences & Humanities and Social Sciences

2.1. Sciences:

Chemistry:

Theoretical and Computational Chemistry (*Quantum Theory of Molecules & Materials; Spectroscopic Modelling & Simulations; Equilibrium & Non-Equilibrium Statistical Mechanics, Physics of Polymers, Stochastic Thermodynamics*).

Mathematics:

Fixed Point Theory, Fractals, Inverse Problems and Statistics (*Design of Experiment, Machine Learning, Non-Parametric Regression, and Biostatistics*).

Physics:

Experimental Condensed Matter Physics (*Magnetism and Superconductivity*)

2.2 Humanities and Social Sciences:

English:

Indian Writing in English, Comparative Literature, Indian Poetics, Cultural Studies, Critical Theory, Film Studies, Indian Aesthetics and other relevant areas.

Economics:

Climate Change Economics, Impact Evaluation, Environmental Economics and Development Economics, Comparative Political Economy and other relevant areas.

Philosophy:

Social & Political Philosophy and Indian Philosophy.

Categories of Admission:

Candidates will be admitted to the Ph.D Programme of the Institute under one of the following categories:

- (a) Regular full-time scholars.
- (b) Research scholars under the external registration programme, sponsored by, employed in an industry/organisation/national laboratory having R&D facilities, and recognised by DST or by IIT Tirupati. A research scholar under the external registration programme will normally carry out part or all of his/her research work in the industry/organization/ national laboratory employing the scholar under the supervision of a guide employed in the same organization and a guide at IIT Tirupati. The candidate must have at least two years' experience in the parent organization.

Eligibility: Ph.D. in Engineering

- (a) Candidates with a Master's degree in Engineering/Technology or a Master's degree by Research in Engineering/Technology with a good academic record.
- (b) Candidates with Master's degree in Sciences with a good academic record and of exceptional merit are eligible for the relevant Engineering discipline. They should have a valid GATE score or UGC/CSIR-NET/NBHM or equivalent qualification in the relevant area tenable for the year of registration.
- (c) Candidates who have qualified for the award of Bachelor's degree in Engineering/Technology from a Centrally Funded Technical Institute (CFTI) with an exceptionally good academic record in an eligible discipline will be considered for direct admission to Ph.D. provided he/she has a minimum CGPA of 8/10 (7.5 for OBC- NCL and 7.0 for SC/ST/PwD on a 10-point scale).
- (d) Candidates under External Registration should have the same qualifications as shown in (a)

Eligibility: Ph.D. in Sciences

- (a) Master's degree in Sciences with a good academic record and having a valid GATE score or UGC/CSIR-NET/NBHM or equivalent qualification tenable for the current year in the relevant area. Master's degree holders in Engineering/Technology are also eligible.
- (b) Candidates who have qualified for the award of Bachelor's degree in Engineering/Technology from a Centrally Funded Technical Institute (CFTI) with an exceptionally good academic record in an eligible discipline will be considered for direct admission to Ph.D. in Sciences provided he/she has a minimum CGPA of 8/10 (7.5 for OBC- NCL and 7.0 for SC/ST/PwD on a 10.0-point scale).

Eligibility: Ph.D in Humanities and Social Sciences

Master's degree in an eligible discipline with a good academic record or equivalent and having a valid GATE score or UGC/CSIR- NET/NBHM or equivalent qualification tenable for the current year in the relevant area.

Master of Science (Research) [M.S. Research] in Engineering:

Research Areas:

Research areas for Master of Science (Research) are the same as shown under Doctor of Philosophy (Ph.D) in Engineering.

Category of Admission:

- (a) Regular full-time scholars
- (b) Research scholars under the external registration programme sponsored by and employed in the parent industry/organisation having R&D facilities and recognized by DST or IIT Tirupati. A Research scholar under the external registration programme will normally carry out part or all of his/her research work in the industry/organisation/national laboratory employing the scholar under the supervision of a guide employed in the same organisation and a guide at IIT Tirupati. The candidate must have at least two years' experience in the parent organisation.

Eligibility for M.S. by Research

The minimum educational qualifications for admission to the M.S. by research degree for full time scholars are as follows:

- (a) Candidates with a Bachelor's degree in Engineering/Technology in the relevant departments with valid GATE score.
- (b) Candidates having Associate Membership of the following professional bodies are also eligible for admission to the M.S. Programme of their parent discipline provided they have a valid GATE score and have passed both part A and part B of the Membership examinations with a good academic record: The Institution of Engineers (India) (Civil/Mechanical/Electrical and Electronics/Electronics and Communications), The Institute of Electronics and Tele-Communication Engineering.
- (c) Engineering Graduates from IITs and other Centrally Funded Technical Institutes (CFTI) with a CGPA of at least 8/10 (7.5 for OBC-NCL and 7 for SC/ST/PwD on 10 point scale) are eligible for seeking admission, without GATE score, to the MS Programme and they can be offered HTRA, if selected.
- (d) Candidates under External Registration should have the same qualification as in (a) however, valid GATE score is not required.

General Remarks

- Shortlisted candidates will have to appear for an interview and/or a written test.
- Reservations for SC/ST/OBC-NCL/PwD shall apply as per GoI rules.
- Financial Assistance (HTRA) is available as per MHRD norms.
- **More details may be found in the INFORMATION BROUCHER.**
- **Applicants should apply through the online portal only**
- The last date for submission of applications is **15-04-2018**.
- The admissions shall be governed by regulations given at IIT Tirupati website.
- No queries will be entertained.
