



**राष्ट्रीय प्रौद्योगिकी संस्थान आंध्र प्रदेश**  
**NATIONAL INSTITUTE OF TECHNOLOGY ANDHRA PRADESH**  
Near National Highway No. 16, Kadakatla,  
TADEPALLIGUDEM – 534101, West Godavari District, Andhra Pradesh

**Adv. No- NITANP/SASS/ADM/2023/1174**

**Date- 10-11-2023**

**ADMISSION TO THE PH.D. (FULL-TIME)/ PH.D. (PART-TIME) / PH.D. (UNDER PROJECT)  
AND M.S. (BY RESEARCH) PROGRAMMES – DECEMBER 2023 SESSION**

**1. THE INSTITUTE:**

National Institute of Technology Andhra Pradesh, Tadepalligudem, is an Institute of National Importance, established in the A.Y. 2015. It is a fully-funded Institute under the Ministry of Education, Government of India. Currently, the Institute offers B.Tech. programme in eight engineering branches, Bio-Technology, Chemical Engineering, Civil Engineering, Computer Science & Engineering, Electrical Engineering, Electronics & Communication Engineering, Mechanical Engineering, and Metallurgical & Materials Engineering. The Institute also offers M.S. (by Research) programme in the above- mentioned eight engineering branches and Ph.D. (both under Full-time, Part-time, under Project modes) programme in the above-mentioned engineering branches, Sciences, Humanities and Management, viz., Mathematics, Physics, Chemistry and English.

**2. ABOUT THE RESEARCH PROGRAMMES:**

The Institute offers Ph.D. (both full-time and part-time) in all the existing departments mentioned above and M.S. (by Research) programmes in all the engineering branches. Details of research areas for admission to the Ph.D. programmes are given in Annexure 'A'.

The following is the list of admission modes for Ph.D. and M.S. programmes.

**a) Ph.D. Full-Time – Stipendiary Category:**

Half-Time Research Assistantship (HTRA) is available to the full-time scholars who are admitted to Ph.D. programmes in different departments, subject to the availability as stipulated by the Ministry of Education (MoE). The award and renewal of the assistantship/scholarship are as per the guidelines issued by MoE, from time to time. The recipients of HTRA are required to assist the department in academic works. The assistantship/scholarship will not be available for sponsored candidates or to the scholars getting financial support from any private agency or other agencies under state or central governments. Candidates having their fellowships from funding agencies such as DST, CSIR, UGC, NBHM, etc. can also apply for Ph.D. (Full-time) in any department relevant to the research grant.

**b) Ph.D. - Project category:**

This category of Ph.D. programme is open for the candidates who are currently working under any sponsored project as JRF/SRF/Project assistant with the faculty members of NIT Andhra Pradesh and interested to pursue Ph.D. degree.

The candidates will be admitted to the Ph.D. programme to work on full-time basis under the project. If the project gets completed before the student completes his/her PhD programme, his/her category will be converted to the SELF-FINANCED mode (no financial assistance will be provided from the Institute) unless he/she is granted an assistantship/fellowship from the Institute or any other agency.

The eligibility criteria and the selection procedure shall remain the same as the Ph.D. full-time stipendiary category.

**c) Ph.D. (Part-Time):**

These positions are open for the candidates who are working on a regular basis (or the position should be ratified by the university, if the position is not regular) in reputed research organizations/academic Institutions/Industries with a minimum experience of two years. The applicants are not entitled to receive institute stipend.

Ph.D. (Part-Time) positions are also open for the permanent staffs of NIT Andhra Pradesh.

d) **M.S. (by Research)** - offered only in externally sponsored mode.

### 3. ELIGIBILITY CRITERIA:

#### a. Eligibility Criteria for Ph.D. (Full-Time) Programme in Engineering:

Candidates applying for Ph.D. (Full-Time) programme in Engineering branches should satisfy all the criteria listed below.

- Candidates with a Master's degree in Engineering/Technology or a Master's degree by Research in Engineering/Technology in appropriate branches\*.
- Candidates belong to UR/EWS/OBC-NCL category must have secured 60% (or above) aggregate marks (CGPA of 6.5) either at UG or PG level examination. For SC/ST/PwD candidates, 55% aggregate (or above) marks or equivalent CGPA of 6.0 is essential either at UG or PG level.
- Candidates should have qualified GATE or NET in the relevant disciplines.

#### b. Eligibility Criteria for Ph.D. (Part-Time) Programme in Engineering:

Candidates applying for Ph.D. (Part-Time) programme in Engineering branches should satisfy all the criteria listed below.

- Candidates should be working on a regular basis (or the position should be ratified by the university, if the position is not regular) in reputed research organizations/academic Institutions/Industries with a minimum experience of two years.
- Candidates with a Master's degree in Engineering/Technology or a Master's degree by Research in Engineering/Technology in appropriate branches\*.
- Candidates belong to UR/EWS/OBC-NCL category must have secured 60% (or above) aggregate marks (CGPA of 6.5) either at UG or PG level examination. For SC/ST/PwD candidates, 55% aggregate (or above) marks or equivalent CGPA of 6.0 is essential either at UG or PG level.

#### c. Eligibility Criteria for Ph.D. (Full-Time) Programme in Sciences / English:

Candidates applying for Ph.D. (Full-Time) programme in Sciences/English should satisfy all the criteria listed below.

- Candidates with a Master's degree in Sciences/English in relevant branch of Science/English respectively.
- Candidates belong to UR/EWS/OBC-NCL category must have secured 60% (or above) aggregate marks (CGPA of 6.5) either at UG or PG level examination. For SC/ST/PwD candidates, 55% aggregate (or above) marks or equivalent CGPA of 6.0 is essential either at UG or PG level.
- Candidates should have qualified GATE or UGC/CSIR-NET in relevant discipline.

#### d. Eligibility Criteria for Ph.D. (Part-Time) Programme in Sciences/English:

Candidates applying for Ph.D. (Part-Time) programme in Sciences/English should satisfy all the criteria listed below.

- Candidates with a Master's degree in Sciences/English in relevant branch of Sciences/English respectively.
- Candidates belong to UR/EWS/OBC-NCL category must have secured 60% (or above) aggregate marks (CGPA of 6.5) either at UG or PG level examination. For SC/ST/PwD candidates, 55% aggregate (or above) marks or equivalent CGPA of 6.0 is essential either at UG or PG level.
- Candidates should have qualified GATE or UGC/CSIR-NET in the relevant discipline.
- Candidates should be working on a regular basis (or the position should be ratified by the university, if the position is not regular) in reputed research organizations/academic Institutions/Industries with a minimum experience of two years.

**\*Note: "The candidates with B.Tech. and M.Tech. degrees in the relevant branches of Bio-Technology, Chemical Engineering are eligible to apply for Ph.D. (Full-Time/Part-Time) programmes in the Department of Bio-Technology, Department of Chemical Engineering, respectively.**

**e. Eligibility Criteria for M.S. (by Research) Programme:**

Candidates applying for M.S. (by Research) in Engineering/Technology should satisfy all the criteria listed below.

- Candidates should have a Bachelor’s degree in Engineering/Technology with a good academic record.
- Candidates should be working on a regular basis in reputed research organizations/academic Institutions/ Industries with a minimum experience of two years.

**4. SELECTION PROCEDURE:**

S. No.	Name of the Programme	Mode of Selection
1	Ph.D. (Full-Time/Part-Time) and M.S. (by Research)	Written Test and/or Interview

**5. FEE STRUCTURE#:**

Fee Particulars	Ph.D. (Full-Time)									
	I Year		II Year		III Year		IV Year		V Year	
	Odd Sem	Even Sem	Odd Sem	Even Sem	Odd Sem	Even Sem	Odd Sem	Even Sem	Odd Sem	Even Sem
<b>Tuition Fee (All Categories)</b>	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500
<b>Other Fee</b>	28600	2900	2900	2900	2900	2900	2900	2900	2900	2900
<b>Total (Rs.)</b>	<b>36100</b>	<b>10400</b>	<b>10400</b>	<b>10400</b>	<b>10400</b>	<b>10400</b>	<b>10400</b>	<b>10400</b>	<b>10400</b>	<b>10400</b>
Fee Particulars	Ph.D. (Part-Time)									
	I Year		II Year		III Year		IV Year		V Year	
	Odd Sem	Even Sem	Odd Sem	Even Sem	Odd Sem	Even Sem	Odd Sem	Even Sem	Odd Sem	Even Sem
<b>Tuition Fee (All Categories)</b>	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000
<b>Other Fee</b>	28600	2900	2900	2900	2900	2900	2900	2900	2900	2900
<b>Total (Rs.)</b>	<b>58600</b>	<b>32900</b>	<b>32900</b>	<b>32900</b>	<b>32900</b>	<b>32900</b>	<b>32900</b>	<b>32900</b>	<b>32900</b>	<b>32900</b>
Fee Particulars	M.S. (by Research)									
	I Year		II Year							
	Odd Sem	Even Sem	Odd Sem	Even Sem						
<b>Tuition Fee (All Categories)</b>	50000	50000	50000	50000						
<b>Other Fee</b>	28600	2900	2900	2900						
<b>Total (Rs.)</b>	<b>78600</b>	<b>52900</b>	<b>52900</b>	<b>52900</b>						

# The fee structure may change from time-to-time as per the institute’s policy. Hostel fee structure is available on the Institute website.

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## **GENERAL INSTRUCTIONS**

- a. The candidates are required to fill and submit the application form through the link as mentioned below: <https://forms.gle/AotPbJHQdPIFLty89>.
- b. The applicant should also forward the soft copy of the fee payment receipt and all the testimonials (merged into one file) through email to [phdadmissions@nitandhra.ac.in](mailto:phdadmissions@nitandhra.ac.in), clearly mentioning course (i.e., Ph.D. Full-time/ Part-time/ under Project/ M.S. (by research)) and branch of the applicant in the subject of the email.
- c. The candidates must pay the required application fee of **Rs.1000/- (Rs.500/- for SC/ST/PwD categories)** for each programme/department/school/discipline only through SBI i-collect and the payment procedure is given in Annexure 'B'. Application fee once paid is non-refundable.
- d. The last date for submitting the online applications is **01<sup>st</sup> December, 2023 (05:00 PM)**.
- e. Details of the department-wise vacant seats are given in Annexure 'C'. Number of vacancies are indicative and may be increased or decreased at any time without any further notice. The Institute reserves the right to modify/defer or cancel full/ part of the advertisement/ admission at any stage of processing without assigning any reason.
- f. Reservation of seats: Reservations are applicable to SC/ST/OBC/Economically Weaker Section (EWS)/candidate with Physical Disability (PwD) as per the rules and regulation of the Govt. of India.
- g. Candidates should check the website ([www.nitandhra.ac.in](http://www.nitandhra.ac.in)) frequently for all future communications such as date of written test/interview, short-listed candidates etc. No separate communication will be sent in this regard.
- h. A separate application form must be submitted for each programme/department/school/discipline.
- i. No TA/DA will be provided for attending written exam and/or interview for Ph.D./M.S. programmes.
- j. Candidates joining Ph.D. programme in December 2023 session must produce their original mark/ grade sheets, Transfer-cum-Migration certificate, NOC and all relevant certificates at the time of admission.
- k. The admission may be cancelled at any time if found the certificates are inappropriate.
- l. In case of cancellation of seat within a semester of their joining, students are required to refund the total received stipend amount to the Institute.
- m. All the programmes are governed by institute's rules and regulations prescribed from time-to-time.
- n. Latest guidelines (dated 31-01-2019) issued by the Department of Higher Education, MHRD, Govt of India, regarding the emoluments for the research personnel engaged in R&D programmes are available in Annexure 'D'.

For any queries, the applicants can drop a mail to: [phdadmissions@nitandhra.ac.in](mailto:phdadmissions@nitandhra.ac.in).

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**Department-wise Research Areas**

<b>Department of Bio-Technology</b>	<b>Department of Chemical Engineering</b>
<ul style="list-style-type: none"><li>• Application of Biopolymers in food and agriculture;</li><li>• Development of Prebiotics;</li><li>• Applied Microbiology;</li><li>• Chemical and Biochemical Engineering;</li><li>• Upstream and downstream bioprocessing;</li><li>• Enzyme Engineering;</li><li>• Nanobiotechnology;</li><li>• Plant Biotechnology;</li><li>• Environmental Biotechnology;</li><li>• Phytopharmacology;</li><li>• Biomedical;</li><li>• Biomaterials;</li><li>• Microbial Biotechnology;</li><li>• Agricultural Biotechnology;</li><li>• Computational Biology; Bioinformatics;</li><li>• Modelling, Simulation and Optimization of Bioprocesses</li></ul>	<ul style="list-style-type: none"><li>• Interfacial Science,</li><li>• Thin Films,</li><li>• Nanotechnology,</li><li>• Fluid Mechanics,</li><li>• Environmental Engineering,</li><li>• Membrane Separation,</li><li>• Wastewater Treatment,</li><li>• Micropollutants Removal,</li><li>• Biofuels</li></ul>
<b>Dept. of Civil Engineering</b>	<b>Dept. of Computer Science &amp; Engineering</b>
<ul style="list-style-type: none"><li>• Environmental Engineering</li><li>• Remote Sensing &amp; GIS based Hydrological Modelling</li><li>• Geotechnical Engineering</li><li>• Geoenvironmental Engineering</li><li>• Construction Materials</li></ul>	<ul style="list-style-type: none"><li>• Probabilistic Graphical Models</li><li>• Representation Learning</li><li>• Cloud Computing</li><li>• Parallel, Approximation and Randomized Algorithms</li><li>• Performance Modeling</li><li>• NLP<ul style="list-style-type: none"><li>▪ Mixed Script, Explainability, Indic Languages</li></ul></li><li>• ML and DL<ul style="list-style-type: none"><li>▪ Vision, NLP and Video Analytics</li><li>▪ Object detection, Image restoration, Image classification and clustering</li></ul></li><li>• Distributed Computing<ul style="list-style-type: none"><li>▪ Query optimization, Block Chains</li></ul></li><li>• Quantum Computing</li><li>• Metric Learning</li><li>• Reinforcement Learning</li></ul>

<b>Department of Electrical Engineering</b>	<b>Department of Electronics &amp; Communication Engineering</b>
<ul style="list-style-type: none"> <li>• Application of Power Electronics</li> <li>• Microgrids and Electric Vehicles</li> <li>• Power Converters for Electric Vehicles</li> <li>• Distribution System Modernization</li> <li>• Artificial Intelligence (AI) / Machine Learning (ML) applications to Power Systems</li> </ul>	<ul style="list-style-type: none"> <li>• UAVs for wireless communication</li> <li>• Signal processing for communication</li> <li>• Radar signal processing</li> <li>• NOMA, 6G</li> <li>• Microwave filter, Antennas</li> <li>• Microwave Sensors</li> </ul>
<b>Department of Mechanical Engineering</b>	<b>Dept. of Metallurgical &amp; Materials Engineering</b>
<ul style="list-style-type: none"> <li>• IC Engines</li> <li>• Emissions Control</li> <li>• Refrigeration and Air-Conditioning</li> <li>• Energy Efficient Buildings</li> <li>• Renewable Energy</li> <li>• Alternative fuels</li> <li>• Energy Systems</li> <li>• Alternative Energy Systems</li> <li>• Manufacturing (Forming and Casting)</li> <li>• Advanced and Smart Materials (Ni, Ti, Steels and other materials) for Mechanical, Thermal and Electrical Applications</li> <li>• Development and Properties evaluation of Metal Matrix</li> <li>• Composites</li> <li>• Development and Properties evaluation of Polymer Matrix composites and Carbon - Carbon Composites</li> <li>• Advanced Materials</li> <li>• Additive Manufacturing</li> <li>• Advanced Machining Technologies</li> <li>• Manufacturing processes</li> <li>• Modelling and Simulation of Mechanical Systems</li> </ul>	<ul style="list-style-type: none"> <li>• Powder Metallurgy</li> <li>• High Temperature Materials</li> <li>• ODS Steels</li> <li>• Powder Processing</li> <li>• Additive Manufacturing</li> <li>• Materials Joining</li> <li>• Welding Metallurgy</li> <li>• Corrosion of Weldments</li> <li>• High Temperature Oxidation</li> <li>• Intergranular/Stress Corrosion Cracking</li> <li>• Surface Engineering</li> <li>• Metallurgical Failure Analysis</li> </ul>

<b>Department of Mathematics (School of Sciences)</b>	<b>Department of Physics (School of Sciences)</b>
<ul style="list-style-type: none"> <li>• Wave Mechanics</li> <li>• Elasto-dynamics</li> <li>• Differential Equation</li> <li>• Mathematical Physics</li> <li>• Dynamical Systems</li> <li>• Thermoelasticity</li> <li>• Fractional Calculus</li> </ul>	<ul style="list-style-type: none"> <li>• Experimental Condensed Matter</li> <li>• Strongly Correlated Electron Systems</li> <li>• Multifunctional Properties of Magnetic Oxides and intermetallic compounds</li> <li>• Magnetism and Superconducting properties of bulk and thin films.</li> <li>• Multifunctional Properties of Bulk and Thin films of Heusler Compounds</li> <li>• Optical and Photonic Materials</li> <li>• Growth of Single crystals</li> <li>• Luminescent glasses</li> <li>• Nano Phosphor materials for white LED applications</li> <li>• Materials for Energy harvesting Applications</li> <li>• Topological insulators</li> </ul>
<b>Department of Chemistry (School of Sciences)</b>	
<ul style="list-style-type: none"> <li>• Multicomponent reactions</li> <li>• Molecular fluorescent sensors for detection and quantifications of toxic heavy metal ions and anions</li> <li>• Peptide and polysaccharide-based nanostructured materials</li> <li>• Synthesis of novel antimicrobial agents</li> <li>• Development of synthetic methods for biologically active compounds</li> <li>• Organic electronic materials</li> <li>• <i>In silico</i> drug design</li> <li>• Medicinal chemistry</li> <li>• Supramolecular chemistry</li> <li>• Biomaterials</li> <li>• Bioinformatics</li> <li>• Molecular modeling</li> <li>• Molecular spectroscopy</li> <li>• Organic and inorganic hybrid materials</li> <li>• Density functional theory (DFT) analysis for molecular structural exploration</li> <li>• Electrochemistry</li> <li>• Molecular self-assembly</li> </ul>	
<b>Department of English (School of Humanities &amp; Management)</b>	
<ul style="list-style-type: none"> <li>• African American Theatre</li> <li>• First Nations Theatre</li> <li>• Diaspora Studies</li> <li>• Gender Studies</li> </ul>	

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**PROCEDURE FOR PAYMENT OF APPLICATION FEES**

- GO TO: <https://www.onlinesbi.com>
- Select "SB Collect"
- Select Payee category- Educational Institutions
- Select Name of the institute - Select "**NIT AP FEE A/c**"
- Select State - Andhra Pradesh
- Select Payment category -
- Fill the details
- Select Payment Category- (Rs. 1000 for GEN/OBC/EWS and Rs.500 for SC/ST/PwD Candidates)
- Proceed

**Save the fee payment receipt and keep it for future references.**

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**Annexure 'C'**

<b>Department-wise vacancy list (Ph.D./M.S. Admission-December 2023 session)</b>								
<b>Department</b>	<b>Ph.D. Full-time</b>						<b>Ph.D. Part-time</b>	<b>Ph.D. Under project</b>
	<b>GEN</b>	<b>EWS</b>	<b>SC</b>	<b>ST</b>	<b>OBC-NCL</b>	<b>Total</b>		
BT	2	0	0	1	1	4	4	0
Chemical	1	0	0	0	1	2	2	0
Civil	2	0	1	0	0	3	0	1
CSE	2	0	1	1	1	5	0	0
EEE	2	1	1	1	0	5	1	1
ECE	3	1	1	0	1	6	0	0
Mech	1	1	1	1	2	6	0	0
MME	2	0	0	0	1	3	0	0
Mathematics (SoS)	1	0	0	0	1	2	0	0
Physics (SoS)	1	1	0	0	1	3	0	0
Chemistry (SoS)	2	0	0	0	1	3	3	0
English (SHM)	0	0	0	0	0	0	0	0

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