



**NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL,**  
**WARANGAL – 506 004, TELANGANA STATE, INDIA**

**SPECIALIZATIONS FOR FACULTY RECRUITMENT FOR**  
**ASSISTANT PROFESSOR/ASSOCIATE PROFESSOR/PROFESSOR-2017**

**The Essential Minimum Academic Qualifications for any of Posts of Assistant Professor/Associate Professor /Professor are PhD and shall have first class in the preceding degrees.**

<b>Sl. No</b>	<b>Department</b>	<b>Specialization</b>
1	<b>CIVIL ENGINEERING</b> Assistant Professor / Associate Professor/ Professor	<b>i.</b> B-Tech and M.Tech or equivalent in allied areas with any of the following specializations at PhD <ul style="list-style-type: none"><li>• Structural Engineering</li><li>• Water Resources Engineering</li><li>• Geotechnical Engineering</li><li>• Transportation Engineering</li><li>• Environmental Engineering</li><li>• Remote Sensing and GIS</li><li>• Construction Technology &amp; Management</li><li>• Allied Areas of Civil Engineering</li></ul> <b>OR</b> <b>ii.</b> Relevant UG, PG Degrees or equivalent and Ph.D. in Geology / Geohydrology/ Engineering Geology/ any other allied area of specialization in Geology
2	<b>ELECTRICAL ENGINEERING</b>  Assistant Professor / Associate Professor/ Professor	B.Tech and M.Tech or equivalent in allied areas with any of the following specializations at Ph.D. <ul style="list-style-type: none"><li>• Power Systems/Power Systems Engg.</li><li>• Power Systems &amp; Power Electronics</li><li>• Power Electronics</li><li>• Power Electronics &amp; Drives</li><li>• Electrical Machinery &amp; Industrial Drives</li><li>• Industrial Electronics</li><li>• Applied Electronics</li><li>• High Voltage Engineering</li><li>• Control Systems</li><li>• Instrumentation &amp; Control Systems</li><li>• Electronic Instrumentation</li><li>• Signal Processing</li><li>• Allied Areas of Electrical Engineering</li></ul>

3	<b>MECHANICAL ENGINEERING</b>  Assistant Professor / Associate Professor/ Professor	B.Tech and M.Tech or equivalent in allied areas with any of the following specializations at Ph.D. <ul style="list-style-type: none"> <li>• Design Engineering</li> <li>• Thermal Engineering</li> <li>• Manufacturing/Production Engineering</li> <li>• Automobile Engineering</li> <li>• Industrial Engineering</li> <li>• Allied Areas of Mechanical Engineering</li> </ul>
4	<b>ELECTRONICS AND COMMUNICATIONS ENGINEERING (ECE)</b>  Assistant Professor / Associate Professor/ Professor	B.Tech and M.Tech or equivalent in allied areas with any of the following specialization at Ph.D. <ul style="list-style-type: none"> <li>• Communication Networks</li> <li>• RF and Microwaves</li> <li>• Wireless Communications</li> <li>• Signal Processing</li> <li>• Speech Recognition / Speech Processing</li> <li>• Image Processing</li> <li>• Electronic Instrumentation</li> <li>• Biomedical Signal Processing</li> <li>• Embedded System Design</li> <li>• Digital Signal Modelling</li> <li>• Device Modelling</li> <li>• VLSI System Design</li> <li>• Advanced Communications Systems</li> <li>• Allied Areas of Electronics</li> </ul>
5	<b>METALLURGICAL AND MATERIALS ENGINEERING (MME)</b>  Assistant Professor / Associate Professor/ Professor	B.Tech and M.Tech or equivalent in allied areas with any of the following specializations at Ph.D. <ul style="list-style-type: none"> <li>• Process Metallurgy/Extractive Metallurgy</li> <li>• Non Destructive Testing</li> <li>• Computational Materials Science</li> <li>• Metal Joining</li> <li>• Metal Casting</li> <li>• Surface Engineering</li> <li>• Corrosion Engineering</li> <li>• Electronic and Magnetic Materials</li> <li>• Energy Materials</li> <li>• Advanced Materials</li> <li>• Powder Metallurgy</li> <li>• Texture of Materials</li> <li>• Deformation Behavior</li> <li>• Mechanical Metallurgy</li> <li>• Physical Metallurgy</li> <li>• Allied Areas of Metallurgical and Materials Engineering</li> </ul>

6	<p><b>CHEMICAL ENGINEERING</b></p> <p>Assistant Professor / Associate Professor/ Professor</p>	<p>B.Tech and M.Tech or equivalent in allied areas with any of the following specializations at Ph.D.</p> <ul style="list-style-type: none"> <li>• Transfer Operations</li> <li>• Chemical Reaction Engineering</li> <li>• Process Control</li> <li>• Novel Separation Techniques</li> <li>• Process Intensification</li> <li>• Energy Technologies</li> <li>• Modeling, Simulation and Optimization</li> <li>• Computational Fluid Dynamics (CFD)</li> <li>• Fuel Cells</li> <li>• Nanotechnology</li> <li>• Green Technologies</li> <li>• Polymer Engineering</li> <li>• Industrial Safety and Hazard Analysis</li> <li>• Molecular Simulation</li> <li>• Allied Areas of Chemical Engineering</li> </ul>
7	<p><b>COMPUTER SCIENCE AND ENGINEERING (CSE)</b></p> <p>Assistant Professor /Associate Professor/ Professor</p>	<p><b>i.</b> M.Tech in CSE or equivalent and Ph.D. with any of the following specializations:</p> <ul style="list-style-type: none"> <li>• Algorithms</li> <li>• Theoretical Computer Science</li> <li>• System Software</li> <li>• Distributed Systems</li> <li>• Software Engineering</li> <li>• Information Security</li> <li>• Bio-informatics</li> <li>• Data Mining</li> <li>• Databases</li> <li>• Big Data Analytics</li> <li>• Data Science</li> <li>• Machine Learning</li> <li>• Image Processing</li> <li>• Human Computer Interface</li> <li>• Mobile Ad-hoc Networks</li> <li>• Internet of Things (IOT)</li> <li>• Wireless Sensor Networks</li> <li>• Allied areas of Computer Science and Engineering</li> </ul> <p><b>OR</b></p> <p><b>ii.</b> B.Tech and M.Tech in CSE or IT or equivalent with Ph.D. in any area of Computer Science and Engineering.</p>

8	<b>BIOTECHNOLOGY</b>  Assistant Professor / Associate Professor/ Professor	B.Tech or equivalent in Biotechnology <b>or</b> Industrial Biotechnology <b>or</b> Chemical Engineering <b>or</b> M Sc. or equivalent in Life Sciences and M.Tech or equivalent in Biotechnology with any of the following specializations at Ph.D.: <ul style="list-style-type: none"> <li>• Biotechnology</li> <li>• Biochemical Engineering</li> <li>• Bioenergy</li> <li>• Biofuels</li> <li>• Bioinformatics</li> <li>• Biomaterials Technology</li> <li>• Biosensors</li> <li>• Downstream Processing</li> <li>• Environmental Biotechnology</li> <li>• Immunology</li> <li>• Metabolic Engineering</li> <li>• Modeling and Simulation of Bioprocesses</li> <li>• Molecular &amp; Cell Biology</li> <li>• Nanobiotechnology</li> <li>• Stem Cell Technology</li> <li>• Systems Biology</li> <li>• Tissue Engineering</li> <li>• Allied Area of Biotechnology</li> </ul>
9	<b>MATHEMATICS</b>  Assistant Professor / Associate Professor/ Professor	PG Degree or equivalent in relevant area and Ph.D. in any of the following areas of specialization: <ul style="list-style-type: none"> <li>• Theoretical Computer Science</li> <li>• Statistics</li> <li>• Operations Research</li> <li>• Differential Equations</li> <li>• Fluid Dynamics</li> <li>• Bio-Mechanics</li> <li>• Computational Fluid Dynamics</li> <li>• Coding Theory</li> <li>• Algebra</li> <li>• Functional Analysis</li> <li>• Allied Areas of Mathematics</li> </ul>
10	<b>HUMANITIES AND SOCIAL SCIENCES</b>  Assistant Professor/ Associate Professor/ Professor <b>(English)</b>	PG Degree or equivalent in relevant area and Ph.D. in the following area of specialization: <ul style="list-style-type: none"> <li>• English Language Teaching</li> </ul>

	Assistant Professor <b>(Psychology)</b>	PG Degree or equivalent in relevant area and Ph.D. in any of the following areas of specialization: <ul style="list-style-type: none"> <li>• Industrial Psychology</li> <li>• Personnel Psychology</li> </ul>
	Assistant Professor <b>(Sociology)</b>	PG Degree or equivalent in relevant area and Ph.D. in the following areas of specialization: <ul style="list-style-type: none"> <li>• Industrial Sociology</li> <li>• Human Ecology</li> <li>• Sociology of Gender</li> </ul>
11	<b>PHYSICS</b>  Assistant Professor / Associate Professor/Professor	PG Degree or equivalent in relevant area or B.Tech in Engineering Physics and M.Tech and Ph.D. in any of the following areas of specialization: <ul style="list-style-type: none"> <li>• Electronics</li> <li>• Photonics</li> <li>• Instrumentation</li> <li>• Materials Science</li> <li>• Allied Areas of Physics</li> </ul>
12	<b>CHEMISTRY</b>  Assistant Professor / Associate Professor/ Professor	PG Degree or equivalent in relevant area and Ph.D. in any of the following areas of specialization: <ul style="list-style-type: none"> <li>• Analytical Chemistry</li> <li>• Physical Chemistry</li> <li>• Theoretical Chemistry</li> <li>• Organic Chemistry</li> <li>• Inorganic Chemistry</li> <li>• Environmental Chemistry</li> <li>• Allied Areas of Chemistry</li> </ul>
13	<b>SCHOOL OF MANAGEMENT</b>  Associate Professor/Professor	<p><b>i.</b> PG in Economics / Commerce / Management or equivalent with any of the following specializations at Ph.D. :</p> <ul style="list-style-type: none"> <li>• Finance</li> <li>• Economics</li> <li>• Marketing</li> <li>• Commerce</li> <li>• Information Technology</li> <li>• Operations Management</li> <li>• Human Resource Management</li> <li>• Allied Areas of Business Administration</li> </ul> <p><b>OR</b></p> <p><b>ii.</b> B.Tech in Branch of Engg. and MBA or equivalent PG degree in Management with any of the above specializations at Ph.D.</p>

	Assistant Professor	<p>B.Tech in Branch of Engg. and MBA or equivalent PG degree in Management with any of the following specializations at Ph.D.</p> <ul style="list-style-type: none"> <li>• Finance</li> <li>• Economics</li> <li>• Marketing</li> <li>• Commerce</li> <li>• Information Technology</li> <li>• Operations Management</li> <li>• Human Resource Management</li> <li>• Allied Areas of Business Administration</li> </ul>
14	<b>Training &amp; Placement</b> Professor	<p>B.Tech and M.Tech <b>or</b> equivalent and PhD <b>or</b> B.Tech or equivalent and MBA or equivalent PG degree and Ph.D in Management</p> <p>Desirable: Experience in Training &amp; Campus Placement Administration</p>

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