

OFFICE OF THE DEAN INSTITUTE DEVELOPMENT
NATIONAL INSTITUTE OF TECHNOLOGY, TRICHIRAPPALLI-620015

Temporary recruitment circular

Date: 25.02.2014

Applications are invited from eligible candidates belonging to Scheduled Caste (SC) / Scheduled Tribe (ST) and Persons with Disabilities (PwD) for the following temporary positions in the SCSP/TSP/PwD sponsored Projects. Please refer Annexure – I for the details about the qualifications and number of research positions. The eligible and interested candidates may send their Bio-data to **The Dean – Institute Development, National Institute of Technology, Tiruchirappalli-620 015, on or before 17-03-2014. Mention the title and department over the envelope. *As per the Institute norms, the candidate selected as JRF in the project may enroll for PhD by clearing suitable requirement of the Institute.**

Short listed candidates will be called for test/interview. Please note that no TA and DA will be provided to the candidates called for test/interview. The NIT Tiruchirappalli reserves the right to reject any or all the applications without assigning any reasons thereof.

Dean (ID)



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Ref: MHRD communication vide no F.No.9-21/2012-SC/ST dt.1st October 2013 & F.No.14-5/2013-SC/ST dt.13th January 2014.

Annexure - I

Temporary recruitment of SRF/JRF and Project Assistant (PA) for the research projects under Scheduled Caste Sub Plan (SCSP), Tribal Sub Plan (TSP) and Persons with Disabilities (PwD)

Details of the Project and Temporary Vacancy

| <u>S.No</u> | <u>Name of the Project</u> | <u>JRF with 18,000/- P.M</u> | <u>JRF with 16,000/- PM</u> | <u>PA with 8000/- PM as consolidated pay</u> |
|------------------------------------|---|---|-----------------------------|--|
| <u>Chemical Engineering</u> | | | | |
| <u>1</u> | Development of New Polymeric Membranes for Ethanol Separation by Air Gap Membrane Distillation | <u>01</u> M.E/ M.Tech in Chemical engineering/ Biotechnology/ Petrochemical engineering/Environmental Engineering/Energy Engineering | <u>NIL</u> | <u>01</u> M.Sc in Chemistry /Physics/Material science (OR) B.Tech in Chemical engineering, Biotechnology, Petrochemical engineering, Environmental Engineering and Electrochemical |
| <u>2</u> | Recovery of High Value Added Globular Proteins From Shrimp Waste Using Aqueous Two Phase System | <u>01</u> M.E/M.Tech in Chemical Engineering/ Bio-Technology/Environmental Engineering | <u>NIL</u> | <u>NIL</u> |

| <u>Civil Engineering</u> | | | | |
|--|--|---|--|--|
| <u>3</u> | Investigation of Industrial & Domestic Waste Treated Weak Soils under Dynamic Loading | <u>01</u> M.E./M.Tech. in Geotechnical Engineering/ Soil Mechanics and Foundation Engineering | <u>01</u> B.E./B.Tech. in Civil Engineering with GATE | <u>01</u> B.E./B.Tech. in Civil Engineering |
| <u>Computer Applications</u> | | | | |
| <u>4</u> | Fuzzy Based Sentence Level Event Pattern Analysis and Prediction for Crime Event Detection | <u>02</u> M.E/M.Tech in Comp.Sci. and Engg. or equivalent | <u>NIL</u> | <u>01</u> M.C.A / M.Sc in Comp. Sci. or Equivalent (OR) B.E/B.Tech in Comp.Sci. and Engg. or equivalent |
| <u>Electrical and Electronics Engineering</u> | | | | |
| <u>5</u> | Study and Implementation of Different Power Saving Techniques for the Efficient Utilization of Air Conditioner by Using Renewable Power Resources. | <u>01</u> ME/M.Tech in Instrumentation & control / Power Electronics or equivalent | <u>01</u> BE/B.Tech in Instrumentation & control / Power Electronics or equivalent with GATE | <u>NIL</u> |
| <u>6</u> | Design, Development and Analysis of Bio-inspired Control strategies for stand-alone solar powered LED lighting systems | <u>01</u> M.E./M.Tech. in Power Electronics/ Power Systems | <u>NIL</u> | <u>NIL</u> |
| <u>7</u> | Maximum Power Extraction from Off – shore Wind-driven Generators through HVDC Transmission system | <u>NIL</u> | <u>01</u> B.E/B.Tech in Electrical & Electronics Engineering with GATE | <u>NIL</u> |
| <u>8</u> | Power Optimization Controller in Switched Mode Power Supplies Connected with Renewable Energy Sources | <u>Nil</u> | <u>Nil</u> | <u>01</u> B.E/B.Tech in Electrical and Electronics Engg. or equivalent |

| <u>Mechanical Engineering</u> | | | | |
|---|---|---|-------------------|---|
| <u>9</u> | Experimental Studies on a Direct Injection Diesel Engine Using Waste Cooking Oil Based Biodiesel and its Blends | <u>01</u> M.E. / M. Tech. / M.S. (by Research) in Mechanical Engineering specialization or equivalent | <u>NIL</u> | <u>NIL</u> |
| <u>10</u> | Investigation on Generator Absorber Heat Exchange (GAX) Ammonia – water vapour Absorption Refrigeration System with Plate Heat Exchangers | <u>NIL</u> | <u>NIL</u> | <u>01</u> B.E. / B. Tech. in Mechanical Engineering or equivalent |
| <u>11</u> | Studies on Growth, Lipid extraction and Biodiesel Conversion Characteristics of Microalgae as a potential Alternate Fuel for Compression Ignition Engines | <u>01</u> M.E. / M. Tech. / M.S. (by Research) in Mechanical Engineering specialization or equivalent | <u>NIL</u> | <u>NIL</u> |
| <u>Metallurgical and Materials Engineering</u> | | | | |
| <u>12</u> | Synthesis and Characterization of SiGe Thermo-electric Materials by High Energy Ball Milling and Spark Plasma sintering | <u>01</u> M.E./M.Tech in Metallurgy / Mechanical / Production / Ceramic / Nano Technology with MSc Physics or B.E in Metallurgy / Mechanical/Production | <u>NIL</u> | <u>NIL</u> |

| <u>Production Engineering</u> | | | | |
|--|--|---|--|--|
| <u>13</u> | Experimental Studies and Numerical Simulations on Micro Joining of Shape Memory Alloys (NITINOL) | <u>01</u> M.E./M.Tech.in Production Engg./ Manufacturing Engg./Mechanical Engg./ Metallurgical Engg., | <u>NIL</u> | <u>NIL</u> |
| <u>14</u> | Artificial Intelligence Heuristics for a Class of Combinatorial Optimization Problems | <u>01</u> M.E/M.Tech in Industrial Engineering or Manufacturing Technology | <u>NIL</u> | <u>NIL</u> |
| <u>Management Studies and Humanities</u> | | | | |
| <u>15</u> | Empowerment of Dalit Women Graduates through Entrepreneurship | <u>NIL</u> | <u>02</u> Master degree in Business Administration with NET/UGC/CAT/ATMA/XAT / MAT or Master's degree in Industrial Engineering / Industrial Management. | <u>NIL</u> |
| <u>Computer Applications, Architecture and Management Studies</u> | | | | |
| <u>16</u> | Deciphering the Dynamic Architecture Design from Music, and Developing the Application Software | <u>02</u> 1. M.Arch with knowledge on ACAD 2. M.E/M.Tech in Comp. Sci. and Engg. or equivalent | <u>NIL</u> | <u>01</u> M.C.A / M.Sc in Comp. Sci., Mathematics or Equivalent (OR) B.E/B.Tech in Comp. Sci. and Engg. or equivalent |

Mathematics and Management Studies

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|------------------|---|-------------------|--|-------------------|
| <u>17</u> | Decision support System for Incomplete Interval Information | <u>NIL</u> | <u>02</u> Master's degree in Mathematics | <u>NIL</u> |
|------------------|---|-------------------|--|-------------------|

1. **The candidates should have minimum 55% aggregate marks or equivalent CGPA of 6.0**
2. **The final year students can also apply, which is subject to satisfying the minimum eligible criteria by July 15th 2014.**
3. **All the candidates should enclose the community certificate/PwD certificate (if applicable) issued by the competent authority with their bio-data**

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