

# ANNA UNIVERSITY

## CHENNAI -25

### RUSA 2.0

### RECRUITMENT OF JRF & TA

**Advt. No.: 6138/RUSA2.0/PD3/2020**

**Dated. 02.09.2020**

Applications are invited from the eligible candidates for the temporary posts of **Junior Research Fellows (JRF)** and **Technical Assistants (TA)** to be engaged in various projects under RUSA at Anna University.

Post Code	Project Title	No of Positions required	
		JRF	TA
PO1	Grid Planning and restructuring for Grid Integration of Electric Vehicle Charging Station	1	1
PO2	Development of Energy Efficient motor drive systems for Electric Vehicle	1	1
PO3	Coordinated design and tuning of controllers for onboard/off board power electronic interfaces	1	1
PO4	Protection of electric vehicles and charging infrastructure against lightening and switching surges	1	1
PO5	Design and development of smart embedded controllers for electric vehicles	1	1
PO6	Improved SoH soft sensors and controls for battery management system of electric vehicles	1	1
PO7	Monitoring and analysis of power quality issues on to the distribution network due to electric vehicle infrastructure	1	2
PO8	Assessment of different hybrid vehicle technologies with high efficiency RCCI combustion engine and effective thermal management systems	2	1
PO9	Material Selection, Fabrication, Characterization and Components Manufacturing for Automotive Applications	1	0
PO10	Investigations on electromagnetic forming process of thermal spray coated AISI 316L sheets used to make metallic bipolar proton exchange fuel cells and forming of tubular and sheet metal components of aluminum alloys for automotive applications	2	0
PO11	Development of Renewable Energy System for Automotive Applications	1	0
PO12	Development of RuO <sub>2</sub> -MnO <sub>2</sub> /N-Doped Graphene Hybrid Nano Super capacitors as Energy Storage Devices for Electric Vehicles	2	2
PO13	Development of cathode materials in Lithium-Sulfur battery for electric vehicle applications	3	3
PO14	Development of fuel cell components for hybrid electric vehicle applications	2	0

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**Salary:**

**Junior Research Fellow (JRF)** : Rs. 32500/month (inclusive of HRA)

**Technical Assistant (TA)** : Rs. 20000/month(inclusive of HRA)

**General Information:**

1. GATE/NET qualified candidates will be given preference and considered for JRF. If suitable candidates are not found in GATE/NET category, Non GATE/Non NET candidate will be considered for suitable post and salary will be fixed accordingly as per the CTDT norms of Anna University.
2. Only short-listed candidates will be called for interview.
3. The position is purely temporary for 6 months and may be extended based on the performance.
4. Separate Application should be sent for each post if required to apply for more than one post.
5. Any claim with regard to qualification & experience should have necessary certificates.

**How to Apply:**

Interested candidates possessing qualification & experience as mentioned in Annexure-I may send their filled-in application form (as per Annexure - II) to Coordinator, RUSA Project, Planning and Development Section, Anna University, Chennai -25 Email : [dpdannauniv@gmail.com](mailto:dpdannauniv@gmail.com) along with self-attested photocopies of educational qualifications, date of birth certificate, any other experience certificates, **Mark sheets**, evidence of any other academic credentials **on or before 18.09.2020**. Kindly mention in the subject as "**Application for the post of JRF / TA – RUSA2.0 / AU**" "**Post code\_\_\_\_\_**".

**REGISTRAR**

**Annexure - I**  
(Advt. No.: 6138/RUSA2.0/PD3/2020)

**Qualifications & Experience**

Post Code	JRF	TA
PO1	<p><b>Essential</b> B.E / B.Tech. and M.E / M.Tech.in Electrical and Electronics Engineering / M.E in Power Systems.</p> <p><b>Desirable</b> Candidates with Industrial Experience &amp; apprenticeship training in TANGEDCO.</p>	<p><b>Essential</b> B.E in Electrical and Electronics Engineering</p> <p><b>Desirable</b> Nil</p>
PO2	<p><b>Essential</b> B.E and M.E in Electrical and Electronics Engineering and M.E in Power Electronics and Drives / Electrical Drives and Control</p> <p><b>Desirable</b> Candidates with Industrial Experience</p>	<p><b>Essential</b> B.E in Electrical and Electronics Engineering</p> <p><b>Desirable</b> Nil</p>
PO3	<p><b>Essential</b> M.E Power Electronics and Drives (OR) M.E Power System Engineering</p> <p><b>Desirable</b></p> <ol style="list-style-type: none"> <li>1. Hands on experience in power electronics hardware and instrumentation</li> <li>2. Knowledge and experience in PS/CAD, MATLAB Simulation</li> <li>3. Knowledge in modelling of solar pv, wind turbine generators</li> <li>4. Knowledge in battery energy storage systems</li> <li>5. Knowledge and Hands on experience in REAL Time Hardware</li> </ol>	<p><b>Essential</b> B.E in Electrical and Electronics Engineering</p> <p><b>Desirable</b> Hands on experience in power electronics instrumentation</p>
PO4	<p><b>Essential</b> ME/MTech. in High Voltage Engineering</p> <p><b>Desirable</b></p> <ul style="list-style-type: none"> <li>• Basic knowledge in Electromagnetic fields , computation and modelling using computational softwares</li> <li>• Hands on experience in generation and measurement of high voltage transients</li> </ul>	<p><b>Essential Qualification:</b> B.E/B.Tech in Electrical and Electronics Engineering</p> <p><b>Desirable</b></p> <ul style="list-style-type: none"> <li>• Basic knowledge in Electromagnetic fields, computation using computational software</li> </ul>

## Qualifications & Experience

Post Code	JRF	TA
PO5	<p><b>Essential</b> ME/MTech / MS in Embedded System technologies/ Control and Instrumentation/ Power Electronics &amp; Drives/ Applied Electronics</p> <p><b>Desirable</b> Experience in Automotive Embedded System preferably in the area of ECU development.</p> <ul style="list-style-type: none"> <li>• Basic knowledge in Embedded Systems, SoC/SoB, Reprogrammable architecture and Matlab/SIMULINK-automotive modules /SPICE/ Embedded IDEs.</li> <li>• Knowledge in ECU development.</li> <li>• Knowledge in Embedded C programming, python programming and Machine learning algorithm.</li> </ul> <p>Knowledge in Automotive embedded systems and AUTOSAR</p>	<p><b>Essential</b> BE/BTech / BS in Electrical and Electronics Engineering / Electronics and Communication Engineering / Electronics and Instrumentation Engineering</p> <p><b>Desirable</b> Industrial experience in Automotive Embedded System.</p> <p><b>Skills required:</b></p> <ul style="list-style-type: none"> <li>• Basic knowledge in Embedded Systems, SoC/SoB, Reprogrammable architecture and Matlab/SIMULINK-automotive modules /SPICE/ Embedded IDEs.</li> <li>• Working Knowledge in Embedded IDEs, Embedded c Programming and Matlab</li> </ul>
PO6	<p><b>Essential</b> M.E. in Computer Science Engineering or M.E. in Embedded System Technologies.</p> <p><b>Desirable</b> Experience in programming with C, Python or Matlab</p>	<p><b>Essential</b> B.E. in Computer Science Or B.E. in Electrical and Electronics Engineering</p> <p><b>Desirable</b> Experience in C, Python or Matlab</p>
PO7	<p><b>Essential</b> ME/MTech in Power systems, Power Electronics, Control &amp; Instrumentation</p> <p>ME/MTech/MS in Electrical and Electronics Engineering , Electronics &amp; Instrumentation Engineering</p> <p><b>Desirable</b> Experience in power quality and power systems, hands on experience in ETAP or Digsilent power factory and rich experience in power station design, installation and commissioning.</p> <ul style="list-style-type: none"> <li>• basic knowledge in Electric vehicles, Power quality, Electrical design (Single Line and Detailed engineering diagrams), PVSYST/PV Sketch, AutoCAD and Matlab/SIMULINK</li> </ul>	<p><b>Essential</b> BE/BTech /BS in Electrical and Electronics Engineering , Electronics and Instrumentation Engineering, Electronics and Communication Engineering</p> <p><b>Desirable</b> Experience in Handling practical power quality measurements at sites (Dranetz and Fluke power quality analyzers). Prior Experience with soldering is highly preferable.</p> <ul style="list-style-type: none"> <li>• basic knowledge in Electric vehicles, Power quality, Electrical design (Single Line and Detailed engineering diagrams)</li> <li>• Working Knowledge on AutoCAD and Matlab/SIMULINK</li> </ul>

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**Qualifications & Experience**

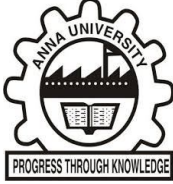
Post Code	JRF	TA
PO8A	<p><b>Essential</b></p> <ul style="list-style-type: none"> <li>M.E./M.Tech. in Internal Combustion Engineering / Thermal Engineering / Refrigeration and Air Conditioning Engineering / Energy Engineering with B.E in Mechanical Engineering</li> </ul> <p><b>Desirable</b> Experience in Thermal Engineering</p>	<p><b>Essential Qualification/Experience:</b></p> <ul style="list-style-type: none"> <li>B.E./B.Tech. in Mechanical Engineering / Automobile Engineering</li> </ul> <p><b>Desirable</b> Nil</p>
PO8B	<p><b>Essential</b></p> <ul style="list-style-type: none"> <li>M.E. /M.Tech.Engineering Design / Manufacturing / Metallurgy with B.E/B.Tech in Mechanical / Production / Manufacturing / Materials Science and Engineering</li> </ul> <p><b>Desirable</b></p> <ul style="list-style-type: none"> <li>Knowledge in Tribology, Micro-Manufacturing, Materials Characterisation and Engine Testing</li> </ul>	<b>NIL</b>
PO9	<p><b>Essential</b></p> <p>B.E/B.Tech in Mechanical Engineering/Production Engineering/Manufacturing Engineering/Materials Science and Engineering/ Metallurgy With M.E/M.Tech in Manufacturing Engineering/Production Engineering/Metallurgy/Polymer Science and Engineering/Polymer Technology Or M.Sc. (Materials Science)</p> <p><b>Desirable</b> Experience in coating technologies such as laser cladding/ energy storage device</p>	<b>NIL</b>
PO10	<p><b>Essential</b></p> <p>M.E/M.Tech in Engineering Design/Production/ Manufacturing / CIM / CAD / IC Engines / Automobile Engg</p> <p><b>Desirable</b> Nil</p>	<b>NIL</b>
PO11	<p><b>1. Essential</b></p> <p>M.E/ M.Tech in Energy Engineering / Solar Energy / Mechanical Engineering</p> <p><b>Desirable</b> Exposure in related area</p>	<b>NIL</b>

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**Qualifications & Experience**

<b>Post Code</b>	<b>JRF</b>	<b>TA</b>
PO12	<b>Essential:</b> M.Sc Chemistry/ Physics/ Material Science, M.E/M.Tech Nano science/ Nano Tech/ Chemical/ Material Science/Energy Engg  <b>Desirable:</b> Experience/Exposure in energy storage materials	<b>Essential:</b> B.Tech- Chemical M.Sc Chemistry/Physics /Material Science
PO13	<b>Essential</b> M.Sc Chemistry/ Physics/ Material Science,  M.E/M.Tech Nano science/ Nano Tech/ Chemical/ Material Science/Energy Engg  <b>Desirable</b> Working experience in energy storage materials	<b>Essential</b> M.Sc Chemistry/Physics /Material Science B.Tech- Chemical Engg
PO14	<b>Essential</b> M.Sc./MTech in Physics/Materials science /Chemistry/ Nanotechnology/ Nanoscience/ Ceramic Technology/ Polymer Technology  <b>Desirable</b> Experience in related research area	<b>Nil</b>

**Annexure – II**  
**Advt. No.: 6138/RUSA2.0/PD3/2020**



**ANNA UNIVERSITY**  
**CHENNAI -25**

**RUSA 2.0 - APPLICATION FORM (JRF/TA)**  
(To be filled by office)

Application number		Date of Receipt of the application	
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**Personal Details:**

Full Name (In Capital)				Affix Recent Passport Size Photo
Date of Birth (DD/MM/YY)		Gender (Male/Female)		
Marital Status (Married/Unmarried)		Nationality		
Category (Gen/EWS/OBC/SC/ST)				
Address for Communication	Permanent Address			
Mobile/Phone no.		E-mail		
Name of the post applied for & post code (Separate application for each post id required)				

**Education Background (From Matriculation Onward; Attach Scanned copies of the qualifying degree certificates and marksheets)**

S. No.	Degree	Board / University	Regular/ Part time	Year	Division	% Marks /CGPA

**Qualifying Examination (GATE/CSIR/UGC/NET/Others)**

S. No.	Qualifying Examination	Branch	Year	Valid up to	Percentile	All India Rank	Any other information

**Professional Experience (Attach Scanned Copies of experience certificates)**

S. No.	Designation	Name of Organization	Period		Nature of Work
			From	To	

**Research Publications (if any)** :

Awards, Patents, Prizes etc., (if any) :

Any other relevant information which is not covered above:

**DECLARATION**

I declare that the information furnished above is true and correct to the best of my knowledge and belief and that no related information is concealed. If any discrepancy is found at any stage, Anna University, Chennai, shall cancel my application / selection. I am aware that this application is only for temporary position.

**Place:**

**Date:**

**Signature of the Applicant**