

## APPLICATIONS FOR THE POST OF JUNIOR RESEARCH FELLOW

Applications are invited from suitable candidates for a Research Position to work at Institute of Infrastructure, Technology, Research and Management (IITRAM), Ahmedabad, Gujarat on an Industry funded Research Project sponsored by Semtronics INC., Aylesbury UK project bearing the sanction number No. PRJ\_IITRAM\_Semtronics\_2301.

The project details, requisite qualification & experience etc. are given below:

<b>Name of the position</b>	Junior Research Fellow					
<b>Title of the Project</b>	Embedded Software Development and Control for Electric Vehicle Applications					
<b>Principal Investigator (PI)</b>	Prof. Dipankar Deb, Professor in Electrical & Computer Science Engineering, IITRAM					
<b>CODE</b>	PRJ_IITRAM_Semtronics_2301					
<b>No. of Position</b>	1 (One)					
<b>Emoluments (p.m.)</b>	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Category</th> <th>Research Fellowship</th> </tr> </thead> <tbody> <tr> <td>JRF</td> <td>Rs. 37,000/- pm (Consolidated)</td> </tr> </tbody> </table>		Category	Research Fellowship	JRF	Rs. 37,000/- pm (Consolidated)
Category	Research Fellowship					
JRF	Rs. 37,000/- pm (Consolidated)					
<b>Essential Qualifications</b>	Candidate must have Master degree in Electrical/Electronics/Power Electronics/Embedded Systems Engineering or equivalent with 1 <sup>st</sup> division both at graduate and post graduate level from a recognized university /Institute.					
<b>Scope of Research Work</b>	<ul style="list-style-type: none"> <li>- Digital control of power converters (CLLC) and Stability analysis</li> <li>- Embedded software development using NXPS32K3X cortex M7 ARM microcontroller.</li> <li>- Model based design using MATLAB &amp; Simulink code generation using embedded coder.</li> <li>- Design and Development of Real time embedded drivers- Auto code generation to support AutoSAR abstraction layers.</li> <li>- CAN/CAN-FD, SPI Communication</li> <li>- Develop simulation Models, Analysis, Testing and Debugging.</li> <li>- Software control with constant current and voltage for battery charging application. Control of converter for bi-directional power flow V2G/V2X.</li> </ul>					
<b>Desirable Skills</b>	Candidates are expected to perform experiments and have a good mathematical ability as well as sound knowledge of computer programming.					

<b>Period of Appointment:</b>	3 years or till the completion of the project, whichever is earlier, However, after every year, the progress of the candidate will be reviewed for further extension. The selected candidate will be encouraged to apply for the PhD program of IITRAM as per the available guidelines
<b>Job Description</b>	Perform the research activity in line with the project stated in the subject line.
<b>Sponsoring Agency</b>	Semtronics Limited, Unit 26 Space Business Centre, Smeaton Close, Aylesbury, UK

### General Terms and Conditions:

1. Mere possessing the prescribed qualification does not ensure that the candidate would be called for interview. Candidates will be shortlisted for interview based on their CV, qualifications, experience and the need of the project.
2. Only shortlisted candidates will be communicated through email and/or phone for interview.
3. Interviews of the shortlisted candidates will be conducted offline. The candidates are required to attend the interview at IITRAM at their own expenses (no TA/DA will be provided).
4. The position is purely temporary and selected candidates shall not have claim on any regular position at the end of the project duration.
5. In case of any doubts regarding the application, please email: **dipankardeb@iitram.ac.in**
6. Incomplete/wrongly filled application forms will be treated as invalid in the short-listing process.
7. Last date of Application is 2<sup>nd</sup> January 2024 till 5.00 PM.
8. Job applying link: <https://iitram.ac.in/career>