



Centre for System Design

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL
P.O. SRINIVASNAGAR, MANGALORE - 575 025



Dept. Heavy Industries - SRM project with M/s Aditya Auto - TPEM 070

**Advertisement for Senior Research Fellow, Junior Research Fellow, Technical assistant, Helper
– Total 06 Nos.**

Sl. No.	Position	Desired Qualification	No. of Posts	Consolidated pay (In Rs. / Month)	Duration of Contractual Period
1	SRF	ME/M Tech in Mechanical Design Engineering with minimum 65% marks or 7.0 CGPA in 10-point scale. Minimum 4 years of teaching experience in Mechanical engineering with focus on machine dynamics and vibration, strength of materials and mechanical design. Candidate with knowledge of Matlab, LabView, Ansys, FEMM and experience in Design and analysis of vibration control using piezo and Magnetorheological materials. Translatory and torsional vibration control. Linear and nonlinear vibration. Experimental Modal analysis. Designing and analysis of Intelligent and adaptive control. Design and analysis of electromagnetic circuit. Thorough knowledge on sensors, actuators and data acquisitions.	1 No.	Rs. 28,000/-	Initial period upto March 31, 2020
2	JRF	BE/B Tech in Computer Science Engineering with minimum 60% marks or 6.0 CGPA in 10 point scale. Candidate with knowledge of HTML, JavaScript, CSS, JQuery, Google web designer, Freeplane, MS web expression 4 and minimum 2.5 years of experience in designing and development of virtual lab simulations. ME/M.Tech streams related to Electrical/Electronics/Integrated Circuit Technology with minimum 90% marks or 9.0 CGPA in 10-point scale. Candidate with knowledge of Wireless Sensor Network, IOT, Embedded system, Remote Triggering, Robotics, Communication system.	3 no.s	Rs. 25,000/-	Initial period upto March 31, 2020
3	Technical assistant	Diploma in Electronics and communication with minimum 70% marks. Candidate with knowledge of MATLAB, LabVIEW, Raspberry Pi and with minimum 5 years of experience in maintenance of electrical & electronic hardware RFID tagging of equipment's, bar code & magnetic card printing along with surveillance & access control maintaining & monitoring. Digital entry of asset register in database. Testing and monitoring of computer and related equipment's, hardware & software troubleshooting, monitoring LAN connectivity, Installation & configuration of printers, scanners and other hardware peripherals.	1no.	Rs. 12,000/-	Initial period upto March 31, 2020
4	Helper	Candidate with minimum 3.5years of experience in performing variety of cleaning activities (sweeping, mopping, dusting etc.). Protecting equipment and making sure there is no inadequacy. Proficiency to read & write in local languages.	1no.	Rs.9,000 /-	Initial period upto March 31, 2020

Walk in interview on 14th August 2019, Report to Centre for System Design, First Floor, Old Physics building, NITK Surathkal before 9 am.

Senior Research Fellow, Junior Research Fellow, Technical assistant, Helper for TPEM - FAME Project 070: Switched Reluctance motor & controller for 2W & 3W

Project short name – SRM project

Department of Heavy Industry – Dept. Science Technology – (DHI-DST) Technology Platform for Electric Mobility (TEPM) under the National Mission for Electric Mobility (NMEM) - Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India - FAME – India.

Switched Reluctance Motors (SRM) is a class of Variable Reluctance Motors without permanent magnets (rare earth) and having salient pole construction. The concept is quite old and has drawn lot of academic interest all over the world. SRM is known to be having very high power and torque densities, offer high efficiency and are well suited for traction applications due to the inherent ruggedness. SRM has been judged by the motor fraternity as the motor of the future. However, there are challenges viz. torque

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ripple, acoustic noise and optimal control and energy management. Due to these challenges there has been little commercial exploitation in the industries as prime movers. But by far, exploitation for traction applications has not been published in the public domain. Being a brushless motor, synchronous by nature and rare earth magnet free construction with all other matrices of merit in its favor has become the motor of choice for all motoring/generation applications that is variable speed in nature.

M/s Aditya Auto Products (adityaauto.com) is the industry lead for the Switched Reluctance motor & controller for 2W & 3W project.

We are looking for dynamic and energetic youths who have a passion for research and deep involvement & commitment in the area of work /specialization to team up in a transdisciplinary group to create the future of Electrical mobility.

As the project schedule is very time critical, Senior Research Fellow, Junior Research Fellow, Technical assistant is required to

- (i) Work after normal office hours when ever project demands.
- (ii) Travel to the partner organization of the project in Bangalore and stay for few days to finish project related task at Bangalore or any location where project task is assigned to.

How to apply (Bio data Email to csd@nitk.edu.in)

1. Bio data with photo (indicating academic achievement and projects done in M Tech, B Tech, Diploma)
2. One page write up how your experience and skill sets suitable for the SRM Project. (please refer to relevant area of expertise required)
3. Copy of your MTech, B Tech and Diploma certificates and marks cards
Email to csd@nitk.edu.in within 15 days of this advertisement
[And attend the walk in interview/written test/ software proficiency test etc.](#)

Selection procedure

1. Written test / software proficiency test – bring your own laptops (only for SRF/JRF/Technical Assisatnt)
2. Technical interview and group discussions
3. HR interview

Note:

- (i) Candidate need to be ready to stay an additional day if required, no TA/DA will be paid to attend the written test/interview



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- (ii) Position of SRF, JRF, Technical assistant and Helper are purely temporary in nature, initial appointment order will be given till March 31, 2020 on satisfactory performance, extendable for one year every time until the project life

Contact Person:

Sd/-

Dr. Pruthviraj U

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Sd/-

Prof. K V Gangadharan

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