



Ref: ME/2019/ECRA

Date: 28<sup>th</sup> March 2019

**JRF Recruitment in DST-SERB Sponsored Project (ECR/2018/001479)**

Applications are invited from eligible candidates to work as a Junior Research Fellow (JRF) in a Science and Engineering Research Board (SERB) sponsored project at Electrical and Electronics Engineering Department, BITS-Pilani, (Pilani campus), Rajasthan. The details are as follows:

<b>Project Title</b>	<i>Resource dimensioning and management of smart and sustainable 5G small cells for rural broadband</i>
<b>Project Duration</b>	3 years
<b>Principal Investigator (PI)</b>	Dr. Vinay Chamola
<b>Project Description</b>	<p>5G is an emerging technology which promises to provide very high data rate / Quality of service (QoS) to the users/ applications served by the cellular infrastructure. However, there are several challenges which confront its deployment, operations and greening 5G networks. This project would focus on addressing the following issues in the context of 5G cellular networks:</p> <ol style="list-style-type: none"><li>1. Developing analytical models for resource dimensioning of solar powered 5G small cell base stations (BS).</li><li>2. Energy management and BS energy sharing for 5G small cell BSs.</li><li>3. Energy and Delay aware operations of the 5G BS network.</li><li>4. Spectral resource allocation / pricing in 5G cellular networks.</li></ol> <p>JRF involved in this project will get chance to pursue a <i>fast track PhD</i> with publication in reputed journals like <i>IEEE Transactions on Communications</i>, <i>IEEE Transactions on Sustainable Energy</i> and will get chance to work closely with leading researchers like <i>Prof. Nirwan Ansari, NJIT, Prof. Bhaskar Krishnamachari, USC, Prof. Biplob Sikdar, NUS</i> etc.</p>
<b>Fellowship</b>	Rs. 31,000/- per month for 2 years and Rs. 35,000/- per month in 3 <sup>rd</sup> year.
<b>Essential Qualifications</b>	M.E./M.Tech with at least 60% marks in any domain of Electrical and Electronics Engineering (e.g. Embedded systems / Communications systems / Power systems or related areas).
<b>Desirable Qualification:</b>	Good written and spoken English, some experience of technical writing (conference papers).

**Application Procedure:**

- Candidates should email their CV to the PI (vinay.chamola.nus@gmail.com) by **30<sup>th</sup> April 2019** with subject of the mail as 'Application for JRF position – DST-SERB project'.
- They should compulsorily fill in their details at <https://forms.gle/DLB6874L1BJK4aRV6> (candidate should log into gmail and then open this link in a new tab to fill in details)
- Shortlisted candidates will be informed through email and called for interview to be held at Electrical and Electronics Engineering Department, BITS-Pilani, (Pilani Campus), Rajasthan.

**Notes:**

1. For any queries regarding the position, please feel free to email the PI.
2. The position mentioned is temporary and for the period of duration of the project (3 years).
3. Selected candidate will be encouraged to join Ph.D. program of BITS-Pilani as per institute rules.
4. If performance of candidate is found unsatisfactory, position can be terminated with 1-month notice.
5. No TA/DA will be paid for attending the interview.

**Dr. Vinay Chamola (PI)**

