

No: Advt/ IITT/CSRC/2021-22/09

Date: 20 Dec 2021

Project Ref. No. CIE/2122/003/MORT/KRIS

Applications are invited from eligible Indian nationals for the post of Research Scholar in a time-bound Government of India Ministry of Road Transport & Highways (MoRTH), New Delhi sponsored project undertaken in the Departments of Civil & Environmental Engineering and Mechanical Engineering.

<b><u>Temporary Position</u></b>	<b><u>Research Scholars – 4</u></b>
<b>Essential Qualification</b>	<b>B.E. / B.Tech in Civil Engineering or Mechanical Engineering (or equivalent degree) with 80% marks and valid GATE score or B.Tech from IIT with minimum 8 CGPA out of 10 or MS/ME/MTech in Civil Engineering or Mechanical Engineering (or equivalent degree) with minimum of 80% marks</b>
<b>Project Title</b>	<b>National facility for Accelerated Testing of Pavements and Vehicle Dynamics (NATPaVeD)</b>
<b>Sponsoring Agency</b>	<b>Ministry of Road Transport &amp; Highways (MoRTH), New Delhi</b>
<b>Consolidated monthly Salary</b>	<b>Rs. 35,000</b>
<b>Principal Investigators</b>	<b>Dr. B. Krishna Prapoorna; Dr. Sriram Sundar</b>
<b>Department/Centre</b>	<b>Civil &amp; Environmental Engineering; Mechanical Engineering</b>
<b>Tenure of Assignment</b>	<b>01 year, extendable to another 01 year subject to satisfactory performance</b>
<b>Essential skills/ knowledge</b>	<b><u>For Civil Engineers:</u> Pavement technology, pavement materials characterization, construction technology, and finite element modeling. <u>For Mechanical Engineers:</u> Dynamic analysis, vibrations, machine design, Strength of materials, and finite element modeling.</b>
<b>Desired Experience</b>	<ul style="list-style-type: none"> <li>● <b><u>For Civil Engineers:</u> Must have exposure to interdisciplinary fields of civil and mechanical engineering encompassing vehicle-pavement interaction, mechanics, laboratory and field-testing experience, life-cycle assessment, statistics as well as numerical modeling and analysis.</b></li> <li>● <b><u>For Mechanical Engineers:</u> Must have exposure to interdisciplinary fields of civil and mechanical engineering encompassing material characterization, vehicle-pavement interaction, laboratory and data-acquisition, signal processing as well as statistics.</b></li> <li>● <b>Must be willing to work efficiently in a team environment, self-motivated, and work under a variety of challenging research conditions</b></li> <li>● <b>Must have good oral and written communication skills</b></li> <li>● <b>Must demonstrate highest work ethics.</b></li> </ul>
<b>Nature of the Work</b>	<b><u>Civil Engineering:</u> The project includes conducting field and laboratory experiments on a variety of paving mixtures (example: field instrumentation, mix design and characterization), collection of data pertinent to highways as well as post-processing that involves life cycle assessment as well as numerical modeling and computation.</b>

	<b>Mechanical Engineering:</b> The project includes design and construction of the mechanical system for the facility. Further, conducting field and laboratory experiments with a variety of machines and vehicles. Collection of data pertinent to vehicle-pavement interaction as well as post-processing that involves theoretical as well as numerical modeling and computation.
<b>Age Limit</b>	<b>28 years (Relaxed for exceptional candidates)</b>
<b>Last date of Application</b>	<b>31 December 2021</b>
<b>Notes</b>	<b>Given the nature of the project, work needs to be carried out in the laboratory and field. Therefore, it is expected that the candidate resides on-campus IITT to create and use the laboratory facilities to complete the tasks.</b>

Eligible candidates must send a **detailed CV** specifying the qualifications and experience **and a statement of purpose (CV and statement of purpose must be sent as a one-single PDF with name clearly marked on the file as follows: IITT\_RS\_Krishna)** on or before **31 December 2021** to Dr. B. Krishna Prapoorna, Associate Professor & Head, Department of Civil & Environmental Engineering, IIT Tirupati at [bkp@iittp.ac.in](mailto:bkp@iittp.ac.in)

The statement of purpose must include responses to the following questions:

1. What motivates you towards pursuing the Research Scholar position? (max. 200 words)
2. Describe your research interests in the advertised area. (max. 300 words)
3. Explain briefly the tentative research plan by using schematics, figures, flowchart, and relevant references. (max. 500 words).

The shortlisted candidates will be informed by **Email only**. Selection will be based on the qualification, experience and interview. **The interview and other logistics will be conducted via online only**. The interview date will be notified to the shortlisted candidates by Email. Candidates may appear in the interview through video conferencing. IIT Tirupati reserves the right to reject any or all the applications without assigning any reason thereof.

**Dean, CSRC**