Call for 3 JRF/Project Associate positions in DST project titled

**IoT Enabled Smart Cities: Pollution, Health, and Governance**

International Institute of Information Technology-Hyderabad, India

Posted: 01 December 2020; Last Date of Submission: 31 December 2020

Applications for three JRF or project associate positions are invited to the above-mentioned DST project. This is a collaborative multi-disciplinary project involving multiple research centers at IIIT-H – Signal Processing and Communications Research Centre (**SPCRC**), Cognitive Science (**CogSci**), and Lab for Spatial Informatics (**LSI**).

1. **IoT network for air pollution monitoring**

The selected candidate is expected to join Dr. Sachin Chaudhari for a Ph.D. degree in signal processing, machine learning, and communications for IoT applications. The project involves theory as well as hands-on experience. The student is expected to deploy several sensor nodes for IoT applications of interest, collect data, and apply signal processing and machine learning on the data for more insights. The student is expected to publish the new findings or solutions in top international conferences and journals. Alternatively, the solutions can also be patented and productized.

**Qualification/Expertise:** minimum B.Tech. in ECE (Electronics and Communication Engineering); MS/MTech Desirable; Experience of programming languages such as MATLAB and C/C++ is necessary, while Python is desirable; Hands-on experience on hardware, electronics, and IoT projects will be beneficial; Qualification for GATE-2019/2020 or PGEE-2020 (IIIT-H) in ECE must for students applying directly after BTech

**Job Reference Code:** SPCRC-DST-IoT

2. **Health**

The selected candidate is expected to join Dr. Kavita Vemuri in investigating the long-term/short-term health (upper respiratory infections) effect on certain demographics – traffic police personnel, school children and bus drivers. We are looking for a motivated and committed individual with reasonable experience in health information analytics. The responsibilities include a collection of heart rate, SPO2, BP and other related physiological parameters from the participants and analysis of the same. Currently, due to COVID most data will be collected with minimal participant contact, but by the end of 2021 the data collection will resume with field trips.

**Qualification/Expertise:** Degree in Public Health, Medicine, Electronics/instrumentation with signal analysis background.

**Job Reference Code:** CogSci-DST-IoT

3. **WebGIS based Geospatial Processing of Sensor Data**

This position will be based at Lab for Spatial Informatics (LSI) under the guidance of Prof. K. S. Rajan. This part of the project work will involve, but not limited to, working, and developing GeoWeb services (such as WMS, WFS), integrating OGC SWE with IoT, and other related technologies. The selected candidate will be a full time PhD student and is expected to both contribute to the above-mentioned project and carry out the academic and research
requirements in pursuance of his/her PhD. This will also include publishing and presenting the findings in the related journals and conferences.

**Qualification/Expertise:** Master's Degree in Geospatial/Spatial sciences or Geoinformatics or Computer Science or other related disciplines with expertise in GIS data handling and Analysis. It is desirable to have a good understanding of Spatial Databases, WebGIS technologies and programming languages like JavaScript or Python.

**Job Reference Code: LSI-DST-IoT**

- **Common details for the three positions**

  **Position and duration:** JRF / Project Associate for 2 years (with tuition fee for PhD paid from the stipend). Hostel accommodation is possible.

  **Stipend per month:** Rs. 31,000 + HRA (as per Government guidelines)

  **Application Due Date:** 31 December 2020

  **Intimation to short-listed candidates:** 7 January 2020.

  **Call for Interview:** Tentatively in the third week of January.

  **The application process should contain a cover letter, and a statement of purpose (SOP), and a CV (full details of qualifications and experience) with copies of relevant certificates and contact details of at least two references. Send it to hiring.projectstaff@iiit.ac.in** Mention the job reference code corresponding to the applied position in the subject line. Application without required details may not be considered.

Dr. Sachin Chaudhari (PI of this project)
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[https://faculty.iiit.ac.in/~sachin.c/](https://faculty.iiit.ac.in/~sachin.c/)