

Recruitment Advt. No: IITDH/R&D/SSR/8.131/2023

Date: 13.09.2023

Farms of future

National mission on interdisciplinary Cyber-physical system, Department of Science and Technology (NMICPS, DST) aims to develop and exploit CPS technologies in services and manufacturing sectors; in agriculture, water, energy & traffic management; health, environment etc. This will help to achieve translation of CPS technologies for societal and commercial use and also produce next generation technocrats in CPS technologies. As part of achieving the above mentioned goals, the NM- ICPS, DST funded BITS BioCyTiH foundation, a Section 8 non-profit company hosted by BITS Pilani. The mandate of the company is to fashion a platform that would foster translational research, innovation, skill development and training in areas of bio-cyberphysical systems (Bio-CPS) related to healthcare, agriculture, water and environment. To the BITS BioCyTiH foundation, IIT Dharwad has recently joined as spoke institute and received funding under the project titled “Farms of Future” to deliver technological solutions to some of the agricultural problems. The proposed solutions are expected to increase the income of small and marginal farmers by reducing their input costs (by means of targeted delivery of pesticides/fertilizers) and crop wastage (using sensors, advisory, diagnostics), extending post-harvest shelf life of farm produce (using solar dryers), and ensuring fair grading of the produce.

IIT Dharwad invites applications for **1 Project Assistant** and **1 Project Associate** who will contribute to the execution of the project whose details are attached in table and the content thereafter.

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| Application link | https://forms.gle/H2RzxqEsu9kKx4kC7 |
| Application start date | 13/09/2023 |
| Application end date | 03/10/2023 |
| Shortlist announcement | Will be communicated later |
| Interview date | To be announced along with shortlist |
| Mode of interview | Online/Offline |

Project title: Fruit quality assessment using depth imaging augmented by conventional RGB imaging.

Project description: Using depth imaging in addition to the RGB spectrum, highly objective and consistent quantification of the fruit quality is targeted. It will ensure a consistent method of grading the quality of fruits based on visual and morphological information across the food supply chain (farmer, trader, and consumer) which in turn will ensure fair pricing. It is a scalable approach and remote interaction with necessary additional infrastructure is possible.

| S. No. | Particulars | Details |
|--------|-------------------------|---|
| 1. | Name of the Position | Project Assistant |
| 2. | Number of Positions | 1 |
| 3. | Essential Qualification | B.Sc. / 3 Years Diploma in Engineering & Technology |
| 4. | Desirable Qualification | Inclination for hands-on mechanical assembly and working with drawings, Expertise in MS word, excel, PowerPoint Fluency in Kannada Hands-on experience in working with plants and agricultural community Mechanical and agricultural background will be preferable. Candidates are expected to be flexible in terms of work and work load allocation |
| 5. | Consolidated Emoluments | 20,000/- + HRA Increment of 15% for 3 years of experience with maximum ceiling of 4 such revisions i.e., up to 12 years of experience. |
| 6 | Duration of the tenure | Approx. 2 years subject to availability of funding and satisfactory performance. |
| 7. | Tenure of appointment | The appointment for the above contractual position will be initially for a period of 01 years, which may be extended or curtailed, based on the performance of the candidate, availability of funds in the project, and requirement in the project. The appointment will be co-terminus with the project. |
| 8. | Age Limit | Not exceeding 50 years as on the date of selection process. |
| 9 | Job Descripton | <ul style="list-style-type: none">● Procurement and organization of samples● Billing and reimbursements● Lab admin work● Working with R&D equipment for data acquisition and processing● Cleaning of samples, hands-on work with soil and mud. |

| S. No. | Particulars | Details |
|--------|-------------------------|--|
| 1. | Name of the Position | Project Associate |
| 2. | Number of Positions | 1 |
| 3. | Essential Qualification | <p>(i) Master's degree in Natural or Agricultural Sciences/ MVSc or bachelor's degree in engineering or technology or medicine from a recognized University or equivalent; and</p> <p>(ii) 2 years' experience in Research and Development in Industrial and Academic Institutions or Science and Technology Organisations and Scientific activities and services</p> <p>Note – Candidates who do not meet criteria (ii) above can still apply. In case suitable candidates are not found, candidates without necessary work experience may be considered for lower designation.</p> <p>with applicable emoluments</p> |
| 4. | Desirable Qualification | <p>Programming Skills Inclination for hands-on mechanical assembly CAD modelling GATE qualification will be preferable</p> |
| 5. | Consolidated Emoluments | <p>(i) Rs. 35,000/- + HRA to Scholars who are selected through a process as mentioned below: a) National Eligibility Test – CSIR-UGC NET including lectureship (Assistant Professorship) or GATE OR b) A selection process through National level examinations conducted by Central Govt. Departments and their agencies and Institutions.</p> <p>(ii) Rs. 28,000/- + HRA for others who do not fall under 5(i) above</p> <p>If item 3 (ii) of the Essential Qualifications is not fulfilled, following will be applicable:</p> <p>(i) 31,000/- + HRA to Scholars who qualify for process mentioned in 5(i) above. (ii) 25,000/- + HRA for others who do not fall under 5(i) above</p> <p>Note - Accommodation can be given based on the availability in the</p> |

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| | | hostel. If the hostel accommodation is given, then HRA will not be applicable. |
| 6 | Duration of the tenure | Approx. 2 years subject to availability of funding and satisfactory performance. |
| 7. | Tenure of appointment | The appointment for the above contractual position will be initially for a period of 01 years, which may be extended or curtailed, based on the performance of the candidate, availability of funds in the project, and requirement in the project. The appointment will be co-terminus with the project. |
| 8. | Age Limit | Not exceeding 35 years as on the date of selection process. |
| 9 | Job Description | <ul style="list-style-type: none"> ● Review of the literature and prior art in the field ● Instrumentation and arrangement of the mechanical set-up to acquire data from one or more sensors. ● Researching suitable techniques and coding for Machine learning, data analysis as well as system level operations. ● 3D Visualization of data and derived metrics ● CAD modelling of the project set-up ● Lab maintenance & administration work ● Procurement process and inventory management ● Coordinating Technical event, meetings, and field surveys ● Porting project code on specialized hardware and mobile handsets. |

General Instructions to the applicants:

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| 1 | Selected candidates shall not have claim on any regular position and shall not be bestowed any of the privileges like Housing, Medical Facility and Other benefits available to regular employees of the Institute. |
| 2 | Applicants are advised to ensure, before appearing for the Selection Process, that they possess the minimum essential qualification and experience laid down for the post. The qualification obtained has to be from a recognized University/Institute. Eligibility in terms of age, qualification and experience of a candidate shall be considered as on the date of the Selection Process. |
| 3 | The number of vacancies indicated in the notification is tentative. IIT Dharwad reserves the right to increase or decrease the number of advertised posts at the time of selection. Further, IIT Dharwad reserves the right to NOT fill any of the posts advertised. |
| 4 | No TA/DA will be paid for attending the Selection Process. |
| 5 | In case of any inadvertent mistake in the process of selection, which may be detected at any stage even after issue of the appointment letter, the Institute reserves the right to <i>modify, withdraw or cancel</i> any communication made to the Applicants. |
| 6 | After joining the service of the Institute, the person(s) will have to abide by the Rules, Regulations, Ordinances, Statutes and Act of the Institute applicable from time to time. He/She may be assigned any duty within or outside the Institute depending upon the exigency of the work. |

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| 7 | The Institute shall verify the antecedents or documents submitted by a person at the time of appointment or during the tenure of the service. In case it is detected that the documents submitted by the candidates are fake, or the person has a clandestine antecedents or background and has suppressed the said information, then his/her services shall be terminated forthwith and legal action may be initiated against such candidates/employees. |
| 8 | No interim correspondence whatsoever will be entertained from the candidates. |
| 9 | Canvassing in any form or bringing in any influence political or otherwise, will be a disqualification for the post. |
| 10 | In case of any dispute/ambiguity that may occur in the process of selection, the decision of the Institute shall be final. |
| 11 | For a query related to Selection Process, applicants may send email on sraut@iitdh.ac.in However, enquiry/queries related to eligibility for the post/interpretation of rules will not be entertained. |

Assistant Registrar (R&D)

Date: 13/09/2023