

# INDIAN INSTITUTE OF INFORMATION TECHNOLOGY AND MANAGEMENT – KERALA

(An Autonomous Institute Established by the Govt. of Kerala)
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# **NOTIFICATION**

Indian Institute of Information Technology and Management – Kerala [IIITM-K] is a postgraduate autonomous Institute established by the Government of Kerala. The Institute is actively involved in entrepreneurship, product development and research in the area of electronics and IT. For more information about the institute please visit the website, www.iiitmk.ac.in.

IIITM-K, on behalf of Signal Processing Tools for Susceptibility and Conductivity Mapping from a Single MR Acquisition using a Spoiled Gradient Multi-Echo Project invites applications from prospective candidates with the following qualification and experience for the below mentioned post for a period of three months contract

Name of Post - Research
Intern (No of Positions - 4)
Job Code - RI/112024/150

Internship Opportunity: Development of Signal Processing Tools for Susceptibility and Conductivity Mapping from a Single MR Acquisition using a Spoiled Gradient Multi-Echo

#### Overview:

The project is offering **4 internship positions** for a duration of **3 months**. The focus is on **Signal Processing** and **Electronics** applications in the field of MRI-based imaging technology.

## **Eligibility:**

- Academic Qualifications:
  - BTech or MTech in Electronics, Computer Science,
     Biomedical Engineering or related fields.
- Current Students Eligible:
  - Postgraduate Certificate
  - Diploma



- MTech
- BTech

#### **Positions Breakdown:**

## 1. Focus on Signal Processing (2 minimum)

## Responsibilities:

- Develop and optimize signal processing algorithms for quantitative susceptibility and conductivity mapping.
- Work on phase unwrapping, denoising, and image enhancement techniques for MR data.
- Analyze multi-echo data for precision mapping.
- Develop AI based methods

## Requirements:

- 1. Strong foundation in signal processing concepts.
  - Proficiency in programming (MATLAB, Python, or similar).
  - Knowledge of MRI data processing is a plus.

## 2. Focus on Electronics (2 minimum)

# • Responsibilities:

- Assist in hardware-software integration for MRI signal acquisition systems.
- Work on simulations and testing of electronic systems supporting multi-echo gradient sequences.
- Support development of electronic interfaces for real-time data collection and processing.

## Requirements:

 Background in electronics systems, including circuit design and testing.



•	Knowledge of embedded systems or related
	hardware tools.
•	Experience with MATLAB/Simulink or similar

#### **General Internship Benefits:**

• Exposure to cutting-edge research in medical imaging.

platforms is advantageous.

- Opportunity to work alongside experts in signal processing and electronics.
- Hands-on experience in a project with potential clinical and research impact.

## **Application Process:**

- Ensure your qualifications match the criteria.
- Prepare a CV highlighting your relevant skills and academic background.
- Submit your application to the designated contact or platform associated with the project.

If you're interested in the intersection of medical imaging, electronics, and advanced signal processing, this is a great opportunity to gain practical experience!

Salary

Rs.25,000/- Per month (consolidated)

## How to Apply:

Applications shall be submitted before 4:00 PM on-line latest by 15th December, 2024. The application can be had from www.iiitmk.ac.in/careers. Applications received thereafter shall not be entertained. The candidates must bring all original certificates/testimonials at the time of interview. The date and time of the interview will be intimated on mobile/email. The candidates are, therefore, advised to check their email regularly after the last date of receipt of application.



## **OTHER TERMS & CONDITIONS**

- 1. The full-time contract appointment will be initially for a period of three months. However, the term may be extended further based on the performance and project requirements.
- 2. The candidate must ensure that he/she possesses the required qualifications and experience for the post.
- 3. If the documents submitted by any candidate are found incorrect/false at the time of the interview, his/her candidature will stand canceled. If any shortcomings are detected after appointment, his/her services are liable to be terminated.
- 4. IIITM-K has the right to reject the candidature of any candidate at any stage and the decision of IIITM-K will be final.
- 5. IIITM-K has the right to reject the entire selection/advertisement procedure at any stage and the decision of IIITM-K shall be final in this regard. Canvasing in any form will lead to disqualification.
- 6. No TA/DA shall be provided to the shortlisted candidates.

Director

\* This is a computer system (Digital File) generated letter. Hence there is no need for a physical signature.

