



# University of Engineering & Technology, Peshawar

## TECHNICAL STAFF REQUIRED

The services of the following staff are required for three years within the “National Centre of Artificial Intelligence at UET Peshawar” (NCAI-UETP), funded by the Higher Education Commission (HEC) of Pakistan. NCAI-UETP comprises of the following two labs with focus on different application areas.

1. **Intelligent System Design Lab (ISD-Lab)**
  - i. Safe City
  - ii. Intelligent System Design
2. **Intelligent Information Processing Lab (IIPL)**
  - i. Artificial intelligence application to develop Mineral Resource Estimation & Mine Planning models
  - ii. Artificial intelligence in Healthcare

Candidates fulfilling the required qualification and experience (given below) may apply on plain paper along with their CV, copy of CNIC, one recent photograph, attested copies of education and experience certificates. **The application cover letter must clearly indicate the lab, project and position to which the candidate is applying.** The application must reach office of the undersigned by closing hour of 17<sup>th</sup> September, 2018. The requisite qualification, experience and responsibilities for the positions in each lab/project are given below.

Note: **Applicants having previous demonstrable experience in AI will be given preference.**

Title/Position (of each member)	Role/Key Responsibilities	Minimum Qualification Required	Expertise / Background Required	Experience Required (years)	Package (PKR)
<b>Business Development Manager</b>	Managing project activities, and developing Marketing and business development strategies, Financial Analysis, Valuation of the product, Future planning in term of finance	MBA with preferably Engineering Degree	Business development experience, Marketing strategies, Artificial Intelligence Market, Innovative products business marketing	2	95,000
<b>Project Staff for Intelligent System Design Lab (ISD-Lab) (Focus on Safe City and Intelligent System Design)</b>					
Team Lead	Monitoring the overall project progress, helping developers and designers with optimized strategies for cost effective development designs	MSc Electrical/Electronic Engineering (4 Years' Experience)/ BSc Electrical/ Electronic Engineering( 6 Years' Experience)	Experience as team lead in various projects, managing components of the project with supervision of 5 or more than 5 employees	3/6`	100,000
Research Assistant 1, 2,3	Hardware Design and Implementation	B.Sc Electrical/Electronic Engineering	C/C++, Assembly Language, Microcontrollers, Hardware/Embedded System Design and Interfacing, DSP System designs, HDL based languages	2	45,000
Research Assistant 4,5	Software Development and Database Design	B.Sc Software/Electronic/ Electrical Engineering/ Computer Science	C/C++, Assembly Language, Object Oriented Programming, PHP, ASP, Database Design (MS SQL Server/Oracle/MySQL)	2	45,000
Research Assistant 6	Communication Network, microwave, waveguides, IoT, Zigbee, Communication, 3G/4G	B.Sc Electrical/Electronic Engineering/ Telecommunication Engineering	OPNET, NS-2 Assembly Language, Object Oriented Programming, Matlab, HFSS, CST	2	45,000

Research Associate 1,2,3	Embedded system design, Digital System design, Transceiver based system design, Integration of RF module with digital signal processors and microcontrollers, Interfacing the RF module Computer	M.Sc Electrical/Electronics/ Computer / Power Engineering	C/C++, Assembly Language, Microcontrollers, Embedded System Design, HDL Based Languages, DSP based systems	2	75,000
Research Associate 4	Relational database design, Implementation of Software and connecting it with database, Implementing a web browser for updates and Information.	M.Sc Electrical/Electronics/ Computer/Software Engineering / Computer Science	C/C++, Assembly Language, Object Oriented Programming, Database Design (MS SQL Server/Oracle/MySQL), OPNET, NS-2, PHP/ASP, Visual C Sharp, .Net	2	75,000
<b>Intelligent Information Processing Lab (IIPL)</b>					
<b>Development of Intelligent Mineral Resource Estimation (MRE) Models: Application and Development of AI algorithms integrating multiple sources of data</b>					
Research Associate (1 Position)	Monitoring project progress, Applying machine learning (ML) /data mining algorithms for development of new MRE models	BSc Mining Engg. Preferably MSc Mining Engg.	Strong Mathematical, and analytical skills, mineral resource estimation, AI and machine learning (ML) algorithms.	02	Rs.75,000
Research Assistant (1 Position)	Pre/Post Processing and Interpretation of geophysical and remote sensing data using conventional/ AI algorithms.	BSc Electrical Engg. Preferably MSc Electrical Engg.	Strong background in Signal processing algorithms, remote sensing and geophysical data.	02	Rs.45,000
<b>Development of Mine Planning and Optimization Tools using Artificial Intelligence Based Techniques</b>					
Research Associate (1 Position)	Monitoring and reporting progress, play strategic role in development of AI based production scheduling algorithms.	BSc Mining Engg. Preferably MSc Mining Engg.	Strong mathematical and programming skills, production scheduling and Machine learning algorithms	02	Rs.75,000
Research Assistant (1 Position)	Develop and implement ML/data mining algorithms for mine planning and production scheduling.	BSc Mining Engg.	Surface and underground mine production scheduling; ML/data mining algorithms.	02	Rs.45,000
<b>Artificial intelligence in Healthcare</b>					
Team lead (1 position)	Monitoring the overall project progress, helping researchers and developers with optimized strategies for efficient and cost effective research and development together with actively conducting R&D activities	BS/MS/PhD in Electrical/Electronics/ Computer/Mechatronics (Engineering) or relevant field or Engineering with MBA	Experience as team lead in similar projects. Prototype development; electronic circuit design; embedded systems; machine learning. Experience with applied machine/deep learning, and/or pattern recognition will be a plus.	3-6	100,000/-
Research Associate (2 positions)	Responsible for undertaking research and development activities in artificial intelligence/machine learning/signal processing/pattern recognition	BS/MS in Electrical/Electronics/ Computer/Mechatronics Engineering or relevant field	Signal processing/image processing/machine learning/deep learning/pattern recognition. C/C++, Python, Tensorflow, Assembly language, Microcontrollers, Embedded system design, HDL based languages, DSP based systems	2	75,000/-
Research Associate (Hardware/	Responsible for undertaking R&D activities in artificial intelligence/machine learning/signal	Bachelor/Master in relevant field	Electronic circuit design; data acquisition and sensors; C/C++, Python, Tensorflow, Assembly language, Microcontrollers,	2	75,000/-

Electronics circuit design) (1 position)	processing/pattern recognition and prototype development		Embedded system design, HDL based languages, DSP based systems		
Research Assistant (Hardware/ Electronics circuit design) (1 position)	Responsible for undertaking R&D activities in artificial intelligence/machine learning/signal processing/pattern recognition and prototype development	Bachelors in relevant field	Electronic circuit design; knowledge of data acquisition systems/cards and sensors; comm. module (wired/wireless) design; Assembly language, Microcontrollers, Embedded system design, HDL based languages, DSP based systems	2	45,000/-
Research Assistant (Mobile App developer/ machine interface developer) (1 position)	Responsible for undertaking development activities under the supervision of team lead, PI and Co-PI	Bachelors in relevant field	Design android/iOS based signal processing applications. Hands-on experience of interfacing external gadgets (e.g. touch screen, microcontroller, camera, sensors) with mobile/embedded controller, experience in API interfacing. C++, Android, ios, Google API, Google Maps, SMS API. Database Design (MS SQL Server/Oracle/MySQL)	2	45,000/-

Director, National Centre of AI-UETP, Basement-New academic Block, UET Peshawar

Note: For any enquiry, email: [gk502@uetpeshawar.edu.pk](mailto:gk502@uetpeshawar.edu.pk)