IoE-Directorate
प्रतिष्ठित संस्थान-निदेशालय
University of Hyderabad
हैदराबाद विश्वविद्यालय
Gachibowli, Hyderabad – 500046
गचीबोवली, हैदराबाद - ५०००४६

प्रतिष्ठित संस्थान
INSTITUTION OF EMINENCE
राष्ट्रीय अपेक्षाएँ, वैश्विक मानक
National Needs, Global Standards

INSTITUTION OF EMINENCE (IoE) CALL FOR APPLICATIONS FOR POST-DOCTORAL FELLOWSHIP (IOE - PDF)

The *IoE- Post-doctoral fellowship (IoE-PDF)* scheme is aimed at attracting motivated young researchers from across the country and abroad, and provide them with the *infrastructure and financial support to engage in creative, high-quality work in their discipline / area of interest*. The fellow will work under a faculty-mentor from an academic unit of the University. The training will provide them with a *platform to grow as an independent researcher and potential faculty member of high-quality*. In addition to research, a fellow may be assigned teaching responsibilities, depending on their interest, to support and complement ongoing and / or initiate new programs in the respective academic unit as per the mandate of IoE.

School of Computer and Information Sciences (SCIS) Invites applications from eligible candidates for the IoE-Post Doctoral Research Fellowship (IOE-PDRF).

Essential Qualifications:

1. PhD in Computer Science and other related disciplines or must have submitted their PhD thesis and are awaiting award of the degree.

Desirable Qualifications:

1. 2 papers published in refereed international journals (SCOPUS/WoS indexed) or CORE Ranked conferences http://portal.core.edu.au/conf-ranks/
2. The candidate should possess a strong research track record with good publications where he/she is the first or corresponding author.

Final selection will be based on an in-person interview of shortlisted candidates, which they have to attend at their own expenses. No TA/DA will be paid for attending the interview or at the time of joining.

Hybrid mode interviews are also possible for candidates with due reasons, provided the candidate notifies about it well in advance.

Total Vacancies: 14 (UR=4; EWS=2; OBC=4; SC=3; ST=1)

It may be noted that merely satisfying the minimum eligible conditions does not guarantee short-listing or selection. The university reserves the right to fill as many vacancies as it decides (i.e. not all vacancies may be filled). Please note that these are FULL TIME on-camus positions.

Shortlisting of the candidates will be based on:

1. Faculty members and their specific areas of interest are mentioned below in the table. Each candidate must get consent from at least one faculty to mentor/host the candidate. A faculty

member should preferably give consent to a maximum of three candidates. **Note:** A faculty member cannot host more than one PDF.

2. Consenting faculty members should ensure that he/she has sufficient infrastructure/facilities to achieve the objectives of the research program.
3. The candidate should possess a strong research track record with good publications where he/she is the first or corresponding author.
4. Experience: Number of years relevant to the research program.

SCIS Website: https://scis.uohyd.ac.in/

Sl.No.	Name of School	Name of Faculty member and contact email address	Areas of research/Interest	Any specific research topic of interest? / Broad description of study to be taken by the scholar
1	SCIS	Prof. Satish Narayana Srirama satish.srirama@uohyd.ac.in	Cloud computing, distributed computing, Internet of Things, fog computing, federated learning and distributed data analytics on the cloud	My current research focuses on cloud computing (scalability/fault tolerance, serverless computing, dynamic deployment with solutions such OASIS TOSCA, Kubernetes etc.), mobile cloud, Internet of Things, fog computing (developing simulators, mobility aspects, scheduling & placement strategies, etc.), distributed data processing on edge-fog-cloud continuum (edge analytics, federated learning, including data pipelines) and large-scale data analytics on the cloud (algorithms and working with distributed frameworks such as Apache Hadoop, Spark, Flink etc.). The list is not exhaustive, and I am interested in any concrete research you would like to perform, in and around these topics. Interested candidates should approach me first on satish.srirama@uohyd.ac.in along with a two-page report describing the research challenges you would like to address during the Postdoc period, along with a detailed methodology.
2	SCIS	Anjeneya Swami Kare askcs@uohyd.ac.in	Graph Algorithms and Social Network Analysis, Large Scale Graph Analytics	The scholar is expected to work on Large Scale Graph Algorithms and Implementations for Information Spreading Problems
3	SCIS	Dr. Digambar Pawar dpr@uohyd.ac.in	Image/Video forgery detection and segmentation	The scholar is expected to work on Face forgery detection methods, frequently encounter and perform poorly in unseen domains in real-world applications. Also, detecting deep fake forgeries in videos is not an easy task. From a digital forensics perspective, Image/Video forgery detection has a very important role in helping multimedia forensic investigators. In this study, DeepFake forgery detection and localization in Images and/or Videos will be carried out.
4	SCIS	Dr. Avatharam Ganivada avatharg@uohyd.ac.in	Deep Neural Networks and applications of computer vision, Medical	The post-doc fellow should know python programming. One should also know the concepts of deep neural networks, image processing, fuzzy sets, etc.

			images, Geochemistry	
5	SCIS	S. Durga Bhavani sdbcs@uohyd.ernet.in	Social Network Analysis	Community detection in large scale biological networks that are bipartite or heterogeneous networks where the nodes and edges may be of different types is of great interest. Huge number of algorithms are available for community detection in unipartite networks. Proposing scalable algorithms for bipartite and heterogeneous networks is an objective. It will also be interesting to tackle heterogeneous networks from the point of view of network representation in order to utilize the framework of graph neural networks in the deep learning paradigm.
6	SCIS	T Sobha Rani sobharani@uohyd.ac.in	Bioinformatics + machine learning	The scholar is expected to work on Disease network construction and analysis
7	SCIS	Prof. Alok Singh alok@uohyd.ac.in	Metaheuristic Techniques	The scholar is expected to work on Application of Metaheuristic Techniques in Manufacturing and Logistics
8	SCIS	Prof. Siba Kumar Udgata udgata@uohyd.ac.in	Wireless Sensor Network, IoT, Wireless Communication, Machine Learning	The scholar is expected to work on device free wireless sensing of non-intrusive nature. It requires knowledge of sensor networks, wireless communication, signal intelligence and machine learning. The scholar is expected to work on a high volume of streaming data using high performance computing system and also the embedded devices.
9	SCIS	Dr. M A Saifulla saifullah@uohyd.ac.in	Software Defined Networking, Named Data Networking, Network Traffic Analysis, Network Management, Data Center Products, Cyber Security Solutions, Quantum Networks, Recommender Systems.	At present, I am working on the following areas of research: Network traffic prediction and analysis (including encrypted traffic, applications eBPF technologies, etc), effective data centre solutions (such as firewalls and content load balancers), Named Data Networking (the application of machine learning techniques to detect security attacks such as IFA, RCPA, and cache pollution attacks, as well as mitigation techniques), Software Defined Networking (efficient solutions for load balancing of SDN distributed controllers and SDN traffic analysis), Advanced Network Management solutions (including root cause analysis, applications of recommender systems) for traditional and emerging networks including 5G, lightweight authentication protocols, and effective intrusion detection mechanisms in traditional and emerging networks. I am interested in any specific research you would like to conduct in and around these topics, as the list is not complete. Candidates who are interested in the position should first contact me at saifullah@uohyd.ac.in. They should also submit a two-page report that outlines the research challenges they wish to address during the postdoctoral period.
10	SCIS	Subba Rao Y V yvsrcs@uohyd.ac.in	Post Quantum Cryptography	Analysis of existing PQC algorithms and secret sharing schemes.

11		Dr. S. Nagender Kumar nks@uohyd.ac.in	Artificial Intelligence of Things	Research exploration in combining AIoT with 5G technology in enhancing the capabilities of IoT systems by leveraging the high speed, low latency, and massive connectivity of 5G networks. This convergence enhances real-time data processing, decision-making, and automation across various applications. The work involves the design and development of the AIoT theme of applications that can run under the 5G/6G communications.
12	SCIS	Dr. Wilson Naik rathore@uohyd.ac.in	Applications of AI on Network Security & Forensics	Solving & Predicting Challenging issues in the domain
13	SCIS	Dr. Nagamani Molakatala nagamanics@uohyd.ac.in	Semantic Communication for 6G Use case in handling multimodal data	The enhancement in Communications with the 5G and 6G expands the intelligent communication channel in transmitting the multimodal data. the exploration of Secure communication with digital coding and integrating Steganography and cryptographic concepts in the Secure communication framework is the importance to protect the data. Exploration and design the framework for 5G/6G usecase is the context of the work
14	SCIS	Prof. Srinivasarao Battula srinivas.battula@uohyd.ac.in	Medical image analysis, Deep Learning	Early detection of Alzheimer's disease stage using Deep learning - A 3D Convolutional Neural Network(3D-CNN) approach from brain Magnetic Resonance Images.

ELIGIBILITY AND OTHER CONDITIONS

1. Candidates from UGC recognized (public or private) institutions or institutions of national importance or from international institutions (NRI/PIO/ Foreign nationals) with degree awarded not more than three years prior to the date of announcement of this call for applications. In the case of Indian nationals, a relaxation of two years will be provided to candidates belonging to OBC/EWS/SC/ST/Women/PwD categories, i.e the PhD should have been awarded not more than Five years from the date of announcement of this call for applications.
2. Candidates from UGC recognized (public or private) institutions or institutions of national importance or international institutions who have submitted their PhD and are awaiting award of the degree are eligible to apply upon submission of Provisional Certificate.
3. Applicants already in regular service are not eligible to apply.
4. Faculty members are not permitted to host/mentor students they have supervised or co-supervised for PhD as IOE-Post Doctoral Fellows.
5. The upper age limit for the fellowship is 32 years (at the time of the submission of application) and age relaxation of up to 3 (three) years will be given to candidates belonging to SC / ST / OBC (Non-Creamy Layer) / Women / PWD / EWS candidates (i.e. 35 years as the upper age limit).
6. The IOE-PDF is a purely temporary assignment, and is tenable for a period of 6 months from the date of appointment, renewable up to maximum of three years OR the end of IOE project, whichever is earlier. Candidates will not be eligible to claim this experience for any permanent position at the University of Hyderabad.

7. Extension beyond the 6 months tenure will be subject to availability of funds and review of performance. There will be rigorous assessment of yearly progress for the renewal of the Fellowship and is NOT automatic.
8. The tenure of the candidates selected in this round will be up to 31-03-2025 with no extension.

FELLOWSHIP: Rs. 55,000/- per month (consolidated) and Rs. 35,000 per month for candidates who have submitted the thesis and are awaiting award of degree.

RESEARCH GRANT: Rs. 1,00,000/ - per annum for IoE-PDFs in Schools of Chemistry, Engineering Sciences and Technology, Life Sciences, Medical Sciences and Physics and Rs 50,000/- per annum in all other Schools. The grant can be used for consumables, contingencies, and domestic travel - for attending conferences / research meetings / symposia). Purchase of items such as minor equipment, laptops, tablets, furniture or any other form of asset are not permitted.

The IOE-PDFs are not eligible to receive any other fellowship from any Government or non-Governmental source during the tenure of the fellowship. If availing any other fellowship / remuneration, s/he will have to resign from the same before accepting the IOE-PDF at UoH.

Deadline for applications: 02-09-2024

Government of India rules on reservation policy will be strictly followed in selections.
The University reserves the right to reject all or any of the applications or cancel the call for applications without assigning any reason thereof.

Candidates should fill the following application and email it to ***deanscis@uohyd.ac.in*** with subject line ***"IOE-PDRF Application"***

- In addition to producing the endorsement letter from the mentor, please also ensure that the ***consent to mentoring is also communicated to the dean by email by the respective faculty.***
- **Please limit the detailed research proposal to a maximum of 10 pages.**

In addition to email, please **post the filled application** in HARD COPY to following address with marking as ***IOE-PDRF application***:

Dean, School of Computer and Information Sciences, University of Hyderabad,
Gachibowli, Hyderabad, Telangana 500046, India.

Note: Please produce proof that it is posted before the deadline 02-09-2024.