



Center	Interdisciplinary Research Center for Communication Systems and Sensing
Job Title	Post-Doctoral Fellow
Job Description	<p>The center is inviting applications for Postdoctoral Research Positions from outstanding candidates with strong expertise and in-depth knowledge in one or more of the following advanced research areas:</p> <ul style="list-style-type: none"> ➤ Communication Systems <ul style="list-style-type: none"> • Next-generation mobile networks and future wireless technologies • Green and energy-efficient communication systems • Sustainable and reliable communications for autonomous unmanned vehicles (AUVs) • Wireless technologies including millimeter-wave, terahertz, optical, and near-field communication • Reconfigurable Intelligent Surfaces (RIS) for programmable wireless environments • AI and machine learning applications to enhance communication system performance • Intelligent resource allocation, interference management, and link adaptation • Digital Twins for Communication Systems • ORAN: Open Access Radio Networks ➤ Radar and Localization <ul style="list-style-type: none"> • Detection and tracking of drones/unmanned aerial vehicles (UAVs) • Radar systems for accurate drone localization and threat mitigation • Channel modeling and real-world propagation measurements • Beamforming optimization for high-resolution radar and communication systems • Localization methods including Time of Arrival (ToA), Time Difference of Arrival (TDoA), Received Signal Strength (RSS), and Direction of Arrival (DoA) • Navigation and positioning using satellite and terrestrial systems • Software Defined Radio ➤ Signal Processing <ul style="list-style-type: none"> • Advanced optimization techniques for signal modeling and enhancement • Deep learning-based signal classification, prediction, and analysis • Adaptive estimation, equalization, and tracking algorithms • Compressed sensing and sparse reconstruction methods • Sensor array processing for spatial filtering and source separation • Image processing, object recognition, and real-time computer vision applications ➤ Bio-sensing and Health Monitoring <ul style="list-style-type: none"> • Remote and contactless sensing solutions • IoT-based wearable and embedded sensor networks for health monitoring • Sparse and energy-aware sensing techniques for long-term tracking • Acoustic, optical, and RF-based biosensing and detection • Collision avoidance systems for smart environments • RFID and backscatter communication for low-power sensing <p>Preference will be given to candidates that possess hands-on research experience, and a strong motivation for interdisciplinary collaboration.</p>

Job Responsibility	<ul style="list-style-type: none"> ➤ Contribute to the ongoing research projects in the center. ➤ Conduct basic and applied research. ➤ Develop advanced products and technology. ➤ Publish findings or creative work. ➤ Write research proposals. ➤ Teaching courses ➤ Contribute to the center activities
Qualification	<ol style="list-style-type: none"> 1. A Ph.D. degree in Electrical Engineering, Signal Processing, Communication Systems, Wireless Communication, Artificial Intelligence, Electromagnetics, Electronics, or a related field from a reputable institution. 2. In-depth knowledge and a strong record of publications in one or more areas described in the Job Description part.