

Engineer/PostDoc Position (M/F)

Reference: CS/JH/TSN/02122024

Research topics 5G Time Sensitive Network

Departement ComSys
Publication date 02/12/2024

Start date ASAP

Duration 12 months

Description

EURECOM's Communication System Department invites applications for <u>2 (two)</u> 12-months Postdoctoral / Research Engineering position (M/F) in the area of 5G Time Sensitive Networks (TSN) in the context of an Industrial-Grade Real-Time Campus 5G.

Wireless Time Sensitive Networks (Wireless TSN) correspond to the highest level of reliability and dependability for industrial-grade wireless systems. While Factory 4.0 stakeholders expects private 5G networks to interconnect devices, robots and workers with time-sensitive instructions (controlled robotics, cobots, ...), TSN is currently not supported by 5G.

The objective of this position is to extend the 5G Core Network user plane function (UPF) as well as 5G RAN with L2 (Ethernet-level) TSN functionalities. The goal is on the one hand to extend the 5G UPF with L2 PDU sessions as well as TSN QoS, and on the other and to connect and guarantee these QoS metrics on the 5G RAN. The work will be carried out in cooperation with French and German industrial partners, the candidate will have the opportunity to closely interact with it.

Finally, this position has also an experimental aspect, where the 5GCS user plan and 5G RAN extended functions will be implemented on EURECOM experimental 5G platforms OpenAirInterface.

Requirements

- Education Level / Degree : Master-level degree or PhD degree
- Field / specialty: Computer Science, Electrical or Telecommunication Engineering
- <u>Technologies</u>: A very good background in Wireless and/or Wired Networks (LAN, 5G). Knowledge of 3GPP and TSN standards is appreciated.
- Languages / systems: Experience in C or C++ programming.
- Other skills / specialties: Experience on OpenAirInterface (OAI) technology is appreciated.
- Other important elements: Strong communication skills and keen to operate in a multidisciplinary team. Fluent in English (speaking, writing), French not required.

Application

The application must include:

- Detailed curriculum,
- Motivation letter of two pages also presenting the perspectives of research and education,
- Name and address of three references.

Applications should be submitted by e-mail to secretariat@eurecom.fr with the reference : CS/JH/TSN/02122024

Important Dates

Screening will start immediately. Deadline to apply: ASAP but no later than January 30th 2025



About EURECOM

EURECOM is a major Engineering School and a Research Center in digital sciences founded in 1991 as a consortium in the international technology park of Sophia Antipolis. The IMT is a founding member of the GIE. Teaching and research activities are organized around 3 promising fields: digital security, communication systems and Data Science.

EURECOM has a staff of 150 (researchers and support teams) and welcomes 400 international students on the Campus Sophia Tech, the largest information science and technology campus of the region. EURECOM enjoys a privileged geographical environment on the French Riviera (Côte d'Azur), between sea and mountains, at the heart of a dynamic and multidisciplinary ecosystem that promotes high-level scientific and technological innovation.

Social advantages

- International and multicultural environment
- Attractive salary Corporate saving plans
- Private retirement plan (executive, employer participation of 100%)
- Employee profit sharing policy
- Company health insurance (mutuelle) with high levels of guarantees for the whole family (employer participation of 60%)
- Restaurant vouchers (employer contribution of 60%)

EURECOM is one of Europe's leading engineering schools specializing in digital technologies. It is located in the heart of the Côte d'Azur, in Europe's Silicon Valley (Tech Park Sophia-Antipolis). EURECOM's research teams work in an international, multicultural environment.

EURECOM has a dynamic policy in terms of **inclusion and quality of life at work**. We are committed to diversity and give equal consideration to all applicants, without discrimination. Above all, we look for competence and team spirit.

All our positions are open to **people with disabilities**. EURECOM has set up a disability advisor to provide support and advice, organize accommodation and make positive commitments to personal integration.

As part of its **gender equality plan**, EURECOM encourages gender diversity within its teams. As part of our gender equality action plan, we encourage male applications for administrative positions, traditionally held by women, and female applications for IT and research positions, traditionally held by men.

EURECOM is taking positive action as part of its **CSR policy**. A CSR representative oversees EURECOM's CSR and energy transition policies (electric charging stations, solar panels, waste sorting, etc.).

Web site EURECOM: https://www.eurecom.fr/fr/eurecom/presentation EURECOM in VIDEO: https://www.youtube.com/watch?v=ullFcqNijnM

Employee experience:

https://www.youtube.com/watch?v=gITWTVRgLpc https://www.youtube.com/watch?v=BHv9zIduzuQ https://www.youtube.com/watch?v=hvbzzCBups8