# Hosein Kangavar Nazari

Hosein.kangavar_nazari@tu-dresden.de (Academic),   hknstudy@gmail.com  (Personal)

Researchgate, Github, Linkedin, Personal Website

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# Education

## ☐ PhD Student In Electrical and Computer Engineering

Technische Universität Dresden — TU Dresden, Gremany (2022 - until Now)

> Topic: Deterministic communication over wired and wireless links via 5G and Time-Sensitive networking

> Supervisor: Prof. Frank Fitzek

## ☐ MSc in Computer Science

Institute for Advanced Studies in Basic Sciences (IASBS), Iran (2018 - 2021)

> GPA: 19.94/20, Rank (1/14)

> Topic: Improving the wireless channel resilience through partial packet recovery of Network Coding-based communication

> Supervisor: Dr. Peyman Pahlevani

## ☐ BSc in Information Technology Engineering

Institute for Advanced Studies in Basic Sciences, Iran (2014 -2018)

> GPA: 18.76/20, Rank (1/44)

> Topic: Evaluation of WebRTC protocol performance over noisy links on Video Traffics

> Supervisor: Dr. Peyman Pahlevani

# Research Interest

☐ Time-Sensitive networking

- Traffic Shaping and scheduling

☐ Wireless Communications

☐ Network Coding

☐ Age of information

# Publications

☐ **Incremental Joint Scheduling and Routing for 5G-TSN Integration**, European Wireless (EW), Rome, Italy, 2023 (accepted for publication).

Authors: Hosein K. Nazari, M. Kurt, H. Liu, S. Senk, G. Nguyen, and F. Fitzek

☐ **Bridging the Gap: 5G-TSN Integration for Industrial Robotic Communication**, European Wireless (EW), Rome, Italy, 2023, (accepted for publication).

Authors: Hosein K. Nazari, J. Abicht, H. Liu, S. Senk, T. Scheinert, G. Nguyen, and F.  Fitzek

☐ **Improving the Decoding Speed of Packet Recovery in Network Coding** IEEE Communications Letters

Authors: Hosein K. Nazari, K. Ghassabi, P. Pahlevani, D. Lucani

☐ **Accelerating Partial Packet Recovery in RLNC**, IEEE Communications Letters

Authors: V. gholamiyan, Hosein K. Nazari, , P. Pahlevani, F. Fitzek

☐ **Open-Source Testbeds for Integrating Time-Sensitive Networking with 5G and beyond**, CCNC 2023 Workshop: ROBOCOM 2023, Las Vegas, USA, 2023

Authors: S. Senk, Hosein K. Nazari, H. Liu, G. Nguyen, and F. Fitzek

☐ **TSN-FlexTest: Flexible TSN Measurement Testbed (Extended Version),** arXiv preprint

Authors: M. Ulbricht, S. Senk, Hosein K. Nazari, H. Liu, M. Reisslein, G. Nguyen, F. Fitzek

# Teaching Experience

☐ **Graduate Courses**

Practical Implementation of Network Coding (2023), instructed by Prof. Frank Fitzek

Coding Theory (2019-2020), Advanced Computer Networks (2019-2020), Distributed Systems (2020) instructed by Dr. Peyman Pahlevani

☐ **Undergraduate Courses**

Network Lab. (2019), Computer Networks (2018-2019), Operating Systems (Fall academic term 2018), Instructed by Dr. Peyman Pahlevani

Algorithm Design (2017), Data Structure (2017), Instructed by Dr. Mansoor Davoodi Monfared

**Duties:** Conducting weekly reviews, lab, or tutorial sessions, evaluating projects

# Research Experience

☐ **Research Associate,** ComNets, TU Dresden (2023 - until now)

**Topic:** Developing a 5G-TSN testbed for deterministic communication over the air

**Responsibilities:** I am engaged in the development of 5G network functions, including application functions and network-side translation services. I am also working on algorithms that facilitate the scheduling and configuration of network devices within the dynamic 5G-TSN network environment.

☐ **Research Assistant and Software Developer,** Sarve Saba Company (2020 - 2022)

**Topic:** Developing IoT systems for online controlling and monitoring system of air conditioning systems.

**Responsibilities:** I actively participated in developing an IoT system with Node js framework to control actuators, capture and analyze the sensor data, and provide real-time reports (Identifying, evaluating, and addressing security threats).

☐ **Wireless Communication Laboratory Research Intern,** IASBS (2018 - 2021)

> **Topic:** Developing an application for monitoring and controlling the Heating, Ventilation, and Air Conditioning (HVAC) system for reducing electric power usage.

> **Responsibilities:** I developed a server to monitor and control the HVAC system. In addition, I designed a user-friendly web interface/dashboard for visually presenting data and generating reports.

# Volunteer Experience

☐ **Computer Science department representative at the research week firm**, Zanjan (2016 - 2018).

**Responsibilities**: Presenting the latest software/products developed in the Computer Science department of IASBS

☐ **University representative at the 5th exhibition of ELECOMP fair, presenting an IoT-based system for online classrooms,** Zanjan (2017).

**Responsibilities**: Presenting the latest software/products developed in the IoT Lab of IASBS

# Skills

☐ **Language proficiency:** Persian (Native),  English (Proficient), German (Beginner)

☐ **Familiar with**

> Several programming languages, including C++, Python, and Javascript.

> Linux (Ubuntu & Kali), Git, web development programming, databases

> Network simulators and measurement tools (Including PyErasure, Kodo and FiFi Simulators, NS3 Simulator, Wireshark, etc.).