Hosein Kangavar Nazari

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

Researchgate, Github, Linkedin, Personal Website

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: 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 link on Video Traffic

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 WKSHPS: ROBOCOM 2023, Las Vegas, USA, 2023

Autors: S Senk, Hosein K. Nazari, How-Hang Liu, Giang T. Nguyen, and Frank H. P. 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,** 2017, Zanjan.

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.).