Faculty Members Website
University of Tabriz



Ahmad Taghinezhad-Niar

Assistant Professor

College: Electrical & Computer Engineering

Dr. Ahmad Taghinezhad-Niar is an **Assistant Professor** in the **Computer Engineering** department at the **University of Tabriz**, Iran. His research interests encompass Distributed Systems, Scheduling Algorithms, Cloud Computing, and Formal Methods. The research group is actively seeking talented students to join in addressing intricate challenges in these domains. Additionally, the laboratory engages in industrial projects focusing on distributed and AI-based software development. Opportunities for international collaborations are enthusiastically welcomed to enrich research endeavors and foster global partnerships. Participation in these academic and applied research pursuits, whether domestic or international, would be highly valued and mutually beneficial.

Research Interests:

- **Scheduling Algorithms**: This area involves the comprehensive review and optimization of algorithms designed to efficiently manage temporal resources within various systems, with the objective of enhancing performance and productivity.
- **Distributed Systems**: This field focuses on studying and researching systems that distribute tasks and information across multiple devices or computers to improve data sharing and task distribution efficiency and reliability.
- **Cloud and Fog Computing**: This research explores concepts related to cloud computing, including various types of cloud services, and investigates issues related to security and scalability within these computing paradigms.
- **Optimization Algorithms and Quality of Services**: This area focuses on the development and application of algorithms to optimize various parameters within computing systems, ensuring energy efficiency, reliability, and security.
- **Formal Methods and Modeling of Computer Systems**: This area applies mathematical and modeling methods to analyze and improve computer systems, aiming to enhance performance and reliability through rigorous mathematical analysis and modeling.

Talented students are encouraged to join the research group, which tackles complex challenges in the aforementioned areas. Collaboration with students and colleagues on industrial projects is also welcomed, with a primary focus on developing software systems, search engines, and AI-driven software.

Papers in Conferences

1. احمد تقی نژادنیار،DDoS Attacks Detection in Multi-Controller Based Software Defined Network،2022 8th International Conference on Web Research (ICWR)،2022.
2. احمد تقی نژادنیار،Modelling and analysis of the monotonic read consistent distributed system using coloured Petri net،2016 Eighth International Conference on Information and Knowledge Technology (IKT)،2016.
3. Ahmad Taghinezhad ,& Niar ,A Client-Centric Consistency Model for Distributed Data Stores using Colored Petri Nets ,2024 10th International Conference on Web Research (ICWR) ,Tehran ,2024/4/24.
4. احمد تقی نژادنیار ,Modeling of resource monitoring in federated cloud using Colored Petri Net ,2017 IEEE 4th International Conference on Knowledge-Based Engineering and Innovation (KBEI) ,2017.

Papers in Journals

1. دکتر جاوید طاهری &, دکتر احمد تقی نژادنیار,Reliability, Rental-Cost and Energy-Aware Multi-Workflow Scheduling on Multi-Cloud Systems,IEEE Transactions on Cloud Computing,2023,IEEE Transactions on Cloud Computing.
2. Taghinezhad , niar, Ahmad , Taheri, Javid,Security , Reliability , Cost , and Energy-aware Scheduling of Real-Time Workflows in Compute-Continuum Environments,IEEE Transactions on Cloud Computing,pp. 1-12,2024 ۰۷ ۱۰,Q1.
3. Taghinezhad , niar, Ahmad , Taheri, Javid,Security , Reliability , Cost , and Energy-aware Scheduling of Real-Time Workflows in Compute-Continuum Environments,IEEE Transactions on Cloud Computing,pp. 1-12,2024 ۰۷ ۱۰.
4. احمد تقی نژاد،QoS-aware online scheduling of multiple workflows under task execution time uncertainty in clouds،Cluster Computing, Springer،2022.
5. دکتر احمد تقی‌نژاد,Energy-efficient workflow scheduling with budget-deadline constraints for cloud,Computing, Springer,2022,Springer.
6. احمد تقی نژاد,A Fault Tolerant Multi-Controller Framework for SDN DDoS Attacks Detection,International Journal of Web Research,2022.
7. احمد تقی نژاد,Workflow scheduling of scientific workflows under simultaneous deadline and budget constraints,Cluster Computing, Springer,2021.