

Farabi College, University of Tehran



Faculty of Engineering



About the Faculty

The Faculty of Engineering is one of the four faculties of Farabi College, University of Tehran, located in Qom. The general principles of the establishment of this faculty were approved in 2007 by the Board of Trustees of the University of Tehran, and the Higher Education Development Council of the Ministry of Science, Research and Technology announced its agreement in principle to the establishment of this faculty in the same year. The organizational structure of this faculty was approved in 2013 by the elected board of the University Council. This faculty has been accepting students through the national entrance exam since the beginning of the academic year 2013-2014.

Capacity, Fields

The faculty currently has over 400 students and twelve faculty members in two specialized departments: Computer Engineering and Industrial Engineering. The fields of study currently offered in the faculty include Computer Engineering and Industrial Engineering at the undergraduate level, and Computer Engineering with a focus on Artificial Intelligence and Robotics, Information Technology Engineering, Industrial Engineering with a focus on Production and Service Systems, Logistics and Supply Chain, Systems Modeling, and Data Analysis at the graduate level.

	Iranian	International	Plural Degree
Masters	81	8	89
Bachelors	358	19	377
Plural Nationality	439	27	



Vision and Mission Faculty

Vision

The Faculty of Engineering, with a focus on industrial and computer engineering and interdisciplinary areas, is one of the leading centers in education, research, and innovation at the national and international levels. Where graduates are nurtured who are creative, responsible, and capable of solving industrial and technological challenges and play a role in the sustainable development and digital transformation of the country.

Mission

The mission of the Faculty of Engineering is to provide higher education based on the current needs of society in the fields of industrial and computer engineering and interdisciplinary, conduct applied and fundamental research with an innovative approach, collaborate effectively with industry and society, and cultivate specialized, ethical, and adaptable human resources that can help improve the quality of life, increase productivity, and national competitiveness.

Faculty Dean's Area



Babak Javadi - Dean of the Faculty

Assistant Professor of Industrial Engineering

PhD in Industrial Engineering - Optimization from the University of Tehran

Citations: 1111

h-index: 16

i10-index: 19

Courses offered by the professor:

- Work and Time Estimation
- Operation Sequence Theory
- Industrial Unit Design
- Scheduling Models and Transportation Optimization
- Industrial Systems Design
- Advanced Production Planning
- Industrial Automation

Research area:

- Computational optimization
- Smart transformation
- Advanced manufacturing systems
- Applied operations research
- Facility location and layout
- Graph theory
- Production planning and control

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Amirhossein Kayhanipour - Vice President of the Faculty

Assistant Professor of Computer Engineering

PhD in Computer Engineering - Artificial Intelligence and Robotics from the University of Tehran

Citations: 275

h-index: 8

i10-index: 7

Courses offered by the professor:

- Machine Learning
- Operating Systems
- Operating Systems Lab
- Advanced Data Mining
- Principles of Database Design
- Intelligent Information Retrieval

Research area:

- Artificial Intelligence
- Machine Learning
- Web Information Retrieval
- Information Fusion
- Data Mining
- Social Network Analysis

[Google Scholar](#)

Head Of Department



Hossein Mohammadi Dolatabadi - Head of Industrial Engineering Department

Assistant Professor of Industrial Engineering

PhD in Industrial Engineering – Socio-Economic Systems from Iran University of Science and Technology

Citations: 217

h-index: 7

i10-index: 5

Courses Offered:

- Operations Research I and II
- Quality and Productivity Management
- Analytic Supply Chain
- Pricing and Revenue Optimization
- Probability Theory and Its Applications
- Queueing Systems
- Engineering Economics
- Management Information Systems

Research area:

- Supply chain coordination
- Risk in portfolio management
- Soft operations research
- Competitive pricing management

[Google Scholar](#)



Ahmad Alinejad - Head of the Computer Engineering Department

Assistant Professor of Computer Engineering

PhD in Mathematics – Analysis from Semnan University

Citations: 29

h-index: 3

i10-index: 0

Courses offered by the professor:

- Mathematics I and II
- Engineering Mathematics
- Numerical Computing
- Linear Algebra

Research area:

- Operator theory
- Banach algebras
- Computational statistics
- Approximate algorithms
- Stochastic algorithms
- Combinatorial optimization
- Analysis of complex networks

[Google Scholar](#)

Faculty Members



Hossein Agha Baba

Associate Professor of Computer Engineering

PhD in Electrical and Electronic Engineering from the University of Tehran

Citations: 939

h-index: 15

i10-index: 24

Courses offered by the professor:

- Logic Circuits
- Electrical Circuits
- Quantum Computing
- Signals and Systems
- Specialized Language
- Computer-Based Design of Digital Systems
- Microprocessor Laboratory

Research area:

- Quantum computing and communication,
- Quantum machine learning,
- Electronic systems and circuits and devices

[Google Scholar](#)



Shahrokh Asadi

Associate Professor of Industrial Engineering

PhD in Industrial Engineering from Amirkabir University of Technology.

Citations: 2529

h-index: 26

i10-index: 32

Courses offered by the professor:

- Data Mining, Models, Algorithms and Applications
- Fuzzy Theory and Its Applications
- Management Information Systems
- Strategic Management
- Fuzzy Set Theory and Its Application in Decision Sciences
- Customer Relationship Management

Research area:

- Data mining
- Machine learning
- Business analytics
- Business intelligence
- Artificial intelligence
- Intelligent systems
- E-government

[Google Scholar](#)

Faculty Member



Adeleh Bitarafan

Assistant Professor of Computer Engineering

PhD in Computer Engineering - Artificial Intelligence from Sharif University of Technology

Citations: 153

h-index: 6

i10-index: 5

Courses offered by the professor:

- Machine Vision
- Artificial Intelligence
- Intelligent Systems

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Research area:

- Artificial Intelligence
- Machine Learning and Deep Learning
- Semi-Supervised Learning and Weak Learning
- Self-Supervised Learning and Multi-Example Learning
- Computer Vision and Image Processing
- Medical Image Analysis



Hossein Sharif

Assistant Professor of Computer Engineering

PhD in Computer Engineering from the University of Manchester, England

Citations: -

h-index: -

i10-index: -

Courses Offered by the Master:

- Electronic Commerce Fundamentals
- IT Management
- Advanced Electronic Business
- IT Project Management and Control
- Discrete Mathematics

Research area:

- Artificial Intelligence and its applications in various industries
- Digital transformation
- E-commerce and technology-driven business models
- Financial technologies
- Blockchain and cryptocurrencies
- Entrepreneurship
- Organizational architecture
- Process management
- E-government
- Development studies and the use of ICT for development

Faculty Member



Kazem Fooladi Qale

Assistant Professor of Computer Engineering

PhD in Computer Engineering - Artificial Intelligence and Robotics from the University of Tehran

Citations: 494
h-index: 8
i10-index: 6

Courses offered by the professor:

- Cyberspace
- Computer Fundamentals and Programming
- Data Governance and Management
- Deep Learning
- Algorithm Design
- Advanced Multi-Agent Systems
- Artificial Intelligence
- Experimental Learning
- Computer Workshop

Research area:

- Cybernetics
- Cyberspace
- Cognitive science
- Artificial intelligence
- Deep learning
- Image processing
- Computer vision
- Computer graphics

[Google Scholar](#)



Mohammad Musazadeh

Assistant Professor of Industrial Engineering

PhD in Industrial Engineering from the University of Tehran

Citations: 944
h-index: 9
i10-index: 9

Courses Offered by the Master:

- General Economics I and II
- Principles of Logistics and Supply Chain Engineering
- Health Systems
- Logistics Systems Analysis and Design
- Multiple Criteria Decision Making (MCDM)
- Analysis and Decision Making
- Systems Analysis
- Production and Inventory Planning and Control

Research area:

- Supply chain optimization
- Multi-objective optimization
- Uncertainty management methods
- Multi-criteria decision making
- Health systems optimization

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Faculty Member



Zahra Movahedi

Assistant Professor of Computer Engineering

PhD in Computer Engineering from the National Institute of Telecommunications,
Paris - France

Citations: 194
h-index: 6
i10-index: 4

Courses offered by the professor:

- Cyber-Physical Systems and the Internet of Things
- Internet Engineering
- Software Engineering
- Advanced Programming
- Data Structures and Algorithms
- Evolutionary Computing
- Web Application Development

Research area:

- Cloud and fog resource optimization
- Data management
- Software development and maintenance
- Blockchain
- Internet of Things

[Google Scholar](#)



Leila Mahdavi

Assistant Professor of Industrial Engineering

PhD in Industrial Engineering from Amirkabir University of Technology.

Citations: 24
h-index: 2
i10-index: 1

Courses offered by the professor:

- | | |
|---|--|
| <ul style="list-style-type: none">• Game Theory• Principles of Simulation• Statistical Quality Control• Computer Systems Simulation: Modeling and Optimization | <ul style="list-style-type: none">• Engineering Statistics• Production and Inventory Planning and Control• Engineering Statistics and Probability• Production Methods |
|---|--|

Research area:

- Simulation
- Game theory
- Optimization in decision making
- Economic modeling
- Machine learning

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Faculty staff



Majid Lotfiyan

Master of Executive Management
Faculty Educational Officer



Bahar Ahmadi

Master of Public Law
Faculty Administrative Expert



Mohammad Johari

Diploma
Faculty Services

Faculty Facilities

1

Farhang Conference Hall

The Farhang Conference Hall, with a capacity of 618 people, hosts conferences, scientific and cultural events from inside and outside Farabi College. The modern and professional equipment in this hall can provide many facilities.

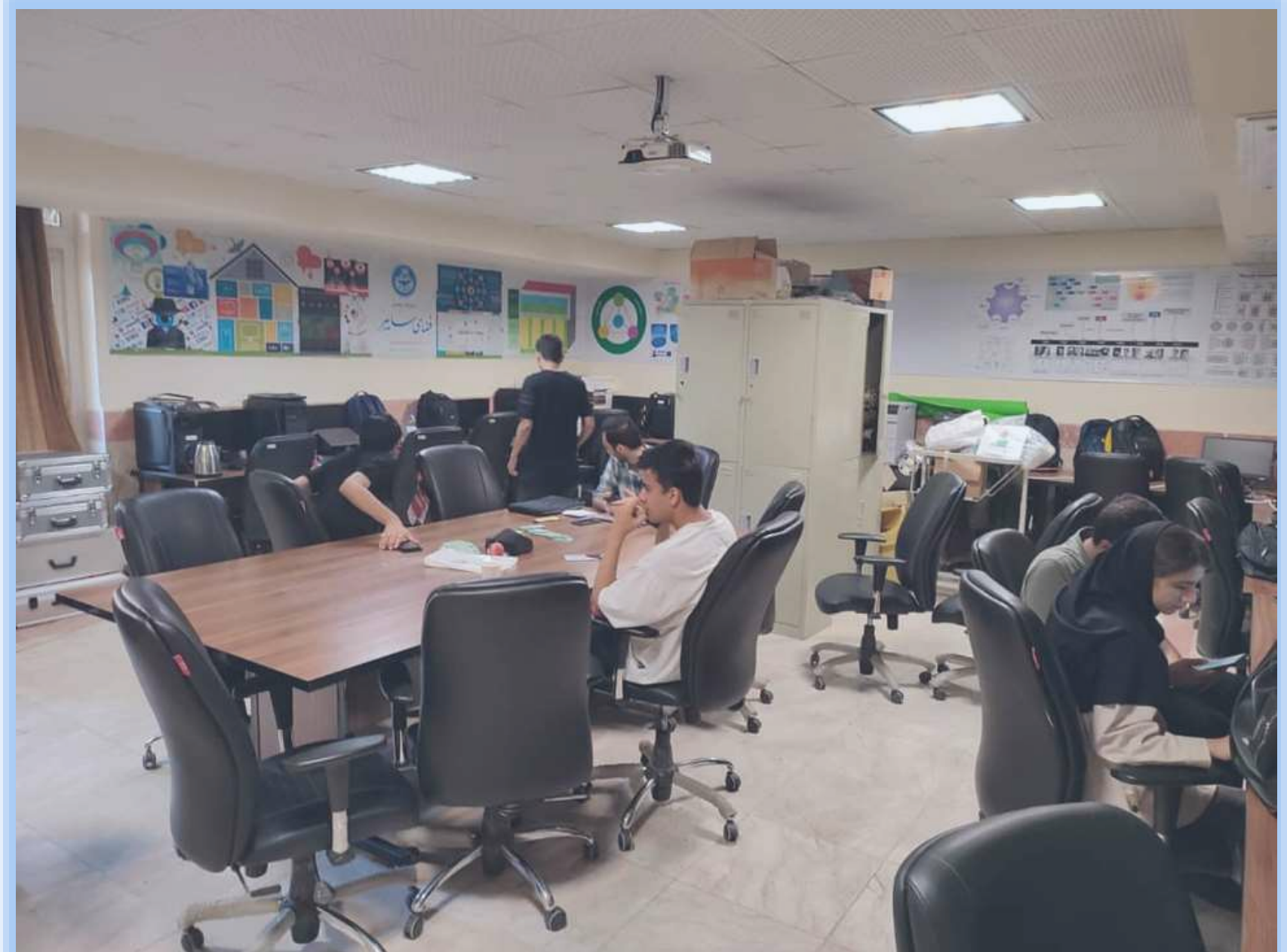


Faculty Facilities

2

Smart Library

The Smart Library, located on the second floor of the faculty, contains advanced measurement, analysis, and computer equipment where students can conduct their research projects with the guidance of relevant professors.



Faculty Facilities

3

Shared Study Environment

The college site, with a capacity of 65 people, can be a suitable space for students to study and work with laptops. Access to electricity and sufficient space for work distinguish this site from other sites of nearby colleges.



4

Being close to everything

The design, interior layout, and location of the faculty's facilities are designed to provide easy access for students to various departments.

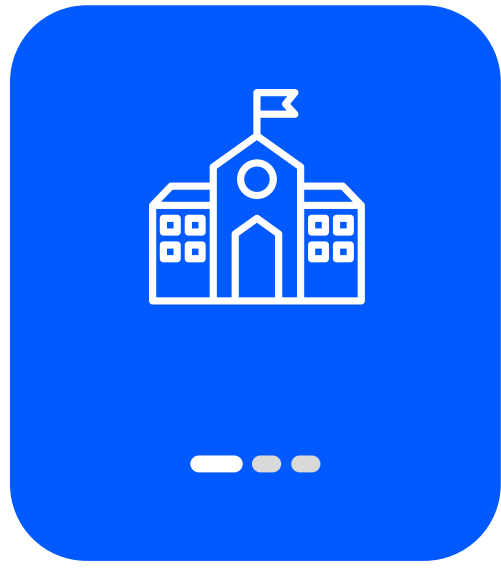
Faculty Facilities





Laboratories

Six research laboratories are active in this faculty in the specialized fields of quantum computing and communications, data mining, computational optimization and intelligent transformation, cyberspace, deep learning, and intelligent information synthesis. In addition to fundamental research, they are engaged in implementing important applied projects in these fields.



Main goal: Creating a research center for professors and students' projects in the field of quantum computing and communications, intergroup scientific collaboration, team activities, attracting national/regional large-scale projects, providing paid computing services to researchers, competing at the global knowledge frontier, membership in the Ministry of Science's network of laboratories and the Convergent Technologies Network (NBIC: Nano, Bio, Information, Cognitive).

Services and capabilities: Quantum modeling, quantum algorithms, quantum communication protocols, quantum systems simulation, quantum information processing, quantum security analysis, joint projects with defense/communication industries, developing RFP/Proposal and new course titles.

Website: Under construction

Email: aghababa@ut.ac.ir

Computers and Communications Quantum Laboratory

Laboratory Supervisor:

Dr. Hossein Aghababa





Main goal: To implement Dr. Shahrokh Asadi's comprehensive research program to cover professors/students' projects, to announce capabilities to industries, to conduct group and interdisciplinary activities in the field of data mining and optimization of smart systems.

Services and capabilities: Electricity (consumption optimization, load/failure prediction, theft detection), Water resources (optimal distribution, precipitation/quality prediction), Water/wastewater (quality improvement, consumption/debt pattern discovery), Banking (customer segmentation, fraud detection, CRM), Urban management (transportation, waste, citizen satisfaction), Industry/Mining/Commerce (maintenance, marketing, logistics), Insurance (risk/premium, customer targeting, fraud detection). Lab Agenda (2019): CRISP-DM Process Guide including Introduction, Understanding the Business (Objectives, Project Plan, Success Criteria), Understanding Data (Sources, Variable Types, Initial Analysis), Preparation (Aggregate, Clean, Transform, Data Reduction), Modeling (Descriptive: Class/Concept, Recurrent Patterns, Association Rules, Correlation, Clustering; Predictive: Classification, Prediction, Outliers, Change Analysis), Evaluation (Review Results, Revert to Previous Steps), Development (Model Implementation, Monitoring, Recording Results).

Website: Under Construction

Email: Shahrokh.asadi@ut.ac.ir

Data Mining Laboratory

Laboratory Supervisor:

Dr. Shahrokh Asadi





Main objective: To implement a comprehensive industrial engineering research program focusing on the Fourth Industrial Revolution, digital transformation, computational optimization, smart manufacturing, automation, simulation, expert systems, and application/software development for manufacturing and service centers.

Services and capabilities: Computational optimization (operations research, meta-heuristic algorithms, high-performance computing), smart manufacturing (industrial automation, simulation of manufacturing/service processes), expert and intelligent systems (automated decision-making, industrial Internet of Things IoT), software/application development (practical solutions for manufacturing and service organizations), specialized training (operations research courses, production/transportation planning, advanced algorithms), international and national cooperation (with industry, especially Qom, attracting applied projects), interdisciplinary research (professor/student projects with practical outputs such as software, reports, articles)

Website: Under construction

Email: babakjavadi@ut.ac.ir

Computational Optimization and Smart Transformation Laboratory

Laboratory Supervisor:

Dr. Babak Javadi





Main objective: To implement a comprehensive program for the development of cyberspace infrastructure and applications, with a central responsibility for the localization of cyber technologies, intelligence on threats and opportunities, and multidisciplinary futures research.

Services and capabilities: Cyber mapping (design of cyberspace monitoring and analysis systems), cybersecurity (classification of damages and threats), strategic analysis (review of documents of the Five Eyes countries and cyber media), project consulting (drafting RFP and Proposal for cyber projects), technology localization (national search engine, secure protocols, internal operating systems, social networks and native messengers), non-technical studies (cyber law, philosophy, psychology, theology and cyberspace management), conceptual model (four layers: computing, communications, control, information), four operational levels (technical, tactical, operational, strategic), focus on practical application, cybersecurity and multidisciplinary futures studies

Website: www.cysp.ut.ac.ir

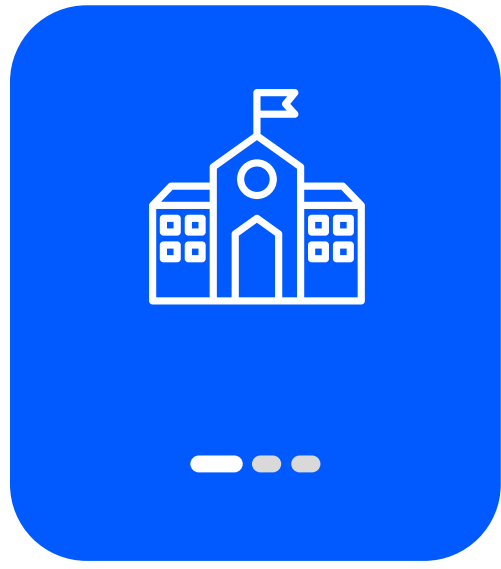
Email: info@cysp.ut.ac.ir

Cyberspace Laboratory

Laboratory Supervisor:

Dr. Kazem Fooladi





Main goal: Developing intelligent learning systems with a focus on deep learning (the most advanced branch of artificial intelligence) as the main key to progress in cyberspace.

Services and capabilities: Image processing (face recognition, person/object tracking, OCR, image data mining), text processing (NLP information retrieval, search engine, web mining), audio processing (speaker recognition, speech recognition), signal processing (digital filters), input services (designing intelligent systems with new deep learning methods, extracting and updating machine learning science maps), RFP/Proposal compilation for related projects, preparation of new university syllabi and course resources, special project on Quantum Deep Learning (Quantum Deep Learning) solving computational challenges using quantum computing

Website: Under construction

Deep Learning Laboratory

Laboratory Supervisor:

Dr. Kazem Fooladi





Main goal: Intelligent integration of information sources for better understanding of the environment and optimal decision-making in military/civilian domains (battle management, control, search, transportation, agriculture, disasters).

Services and capabilities: Multi-source information fusion (integration of incomplete/uncertain data), key applications (military: battle management, civilian: control systems, smart search, ITS, agricultural sensing, disaster prediction), research and education (professor/student projects, group activities, frontier research of knowledge), cooperation (attracting national/regional mega-projects, membership in the Ministry of Science and NBIC network), knowledge localization (providing expert personnel, developing sustainable governance)

Website: Under construction

Email: keyhanipour@ut.ac.ir

Intelligent Information Fusion Laboratory

Laboratory Supervisor:
Dr. Amirhossein Kayhanipour





Contact with the faculty

Faculty contact numbers:

+9825 36166652

Faculty Address:

Qom, the beginning of the old Tehran road, Farabi
College, University of Tehran, Faculty of Engineering

GoogleMap

Website:

www.feng.ut.ac.ir