

NEW TOPIC LIST

FACULTY OF CIVIL ENGINEERING

Civil Engineering Programme

Biomass as a source of energy
Blended cements containing fly ashes as a construction material
Bridge stability
CFRP Laminates
Chemical and physical admixtures for concrete
Comparing cable-stayed bridges to suspension bridges
A comparison of concrete and steel bridges
Composite materials
Computers in civil engineering
Concrete pavements
Concrete roads/highways
Constructing earthquake resistant bridges
Construction of the pyramids in Egypt
Dams
Deformation of steel structures
Design of Bosphorus bridges
Earthquakes
The Fall of the Twin Towers
Geotextiles in Civil Engineering
Geosynthetics in civil engineering
GIS development
Global positioning system (GPS)
Heat insulation in construction
High performance concrete (HPC) in reinforced constructions
High-rise accommodation
Highway maintenance and rehabilitation
Immersed tunnels
Intelligent construction
Lightweight concrete
The Metro System
Plastic windows
Railways as a transportation tool
Ready mix concrete
Santiago Calatrava's bridges
Seismic design bridges
Self compacting concrete
Sick building syndrome
Skyscrapers
Soil investigation methods
Stadium design
Steel constructions
Suspension bridges
Steel in bridge constructions
Wooden structures

Geodesy and Photogrammetry Engineering Programme

Artificial satellites

Cyanide leaching process for extracting gold by Eurogold Mining Corporation

Digital maps against traditional maps

EDMs

Environmental Engineering Programme

Activated sludge process

Aerobic composting of municipal waste

Agricultural pesticides in soil and water environment

Bacteria in wastewater treatment

Disinfection of wastewater and water

Disposable nappies

Hydroelectric power for electricity generation

Marine pollution

Municipal solid waste composting

Nuclear power reactors

Organic pollutants

Pesticides

Recyclable solid waste material

Wastewater characterization

FACULTY OF ARCHITECTURE

Architecture Programme

Acoustic design in concert halls

Amorphous buildings

Appropriate colour combination usage

Archigram

Architect Sinan

Architectural propaganda

Architectural psychology

The architecture of Kengo Kuma

Artificial and natural light in hospital wards

Artificial lighting compared to daylighting

Ataturk Cultural Centre (AKM)

Bauhaus educational system

Biennial

The built environment and its effects

Climate and architectural design

The Colosseum

Components of mosque structure

Daylighting

Deconstruction as architectural movement

Decoration in Islamic architecture

Design of Mustang

Design and construction of modern housing estates
 Effects of colour on human psychology
 Effects of commercial purposes on the design of skyscrapers
 Effects of skyscrapers on city perspective
 Ergonomy
 Factory built houses
 Famous women icons' effects on fashion
 Feng Shui and building design
 Frank Lloyd Wright
 Function versus aesthetics
 Function versus form
 Gentrification
 Glass in designing a house and its effects on human life
 Great architectural failures - Yamasaki's 'Pruitt Igoe' and Mies Van de Rohe's skyscrapers
 Gothic structures
 Green architecture
 Historical survey of Istanbul landmarks
 Hyperface architecture
 The importance of computer programs for the architect
 The importance of directing the sound waves in room acoustics
 The importance of right lighting
 The importance of the sun in building design
 Japanese style in housing
 Le Corbusier
 Leonardo da Vinci
 Litracon
 The Mausoleum at Halicarnassus
 Medieval city architecture
 Modernism
 Organic architecture
 Passive solar energy systems' advantages in buildings
 Photography
 Poetics of architecture
 Portable architecture
 Positive effects of post modernism on architecture
 Prefabrication
 Restoration
 Richard Rogers
 Santiago Calatrava's bridges
 Solar houses
 Sound as a part of construction business
 Sustainable architecture
 Takeo Andao's Architecture
 Thermal insulation in buildings
 Tokyo Skycity Project
 Turkish Republic (architecture of)
 Virtual architecture
 Women's influence in architecture

Urban and Regional Planning Programme

Ecotourism
 Effects of big cities on immigrants
 Effects of lack of infrastructure on transportation
 Effects of religion on urban design
 Effects of urbanization on local climate
 The Garden City Movement in England
 Gated communities
 Gentrification of Tarlıbaşı
 Gentrification of Sulukule
 Green areas in urban planning
 Green roofs in urban areas
 Illegal constructions
 Le Corbusier and Unite d'Habitation
 Metro as a better solution for traffic problems
 New urbanism
 Overpopulation
 Park design and security
 Population growth
 Private car usage and traffic
 Public participation in urban planning
 Socio-economic problems of tourism
 Squatter settlements/Slums and their negative effects on the progress of the cities and human life
 Sprawl urbanization
 Street furniture
 Tree selection for urban planting
 Urban greening
 Urban planning as a development level of countries
 Urban public parks
 Waterfront projects

Industrial Product Design Programme

Advertising and the visual arts
 3D printing in design
 Bauhaus's effect on industrial product design
 Car wheel rims
 Computers in industrial design
 Concept cars
 Effects of colour on industrial design
 Factors to be taken into consideration while designing toys and playgrounds for children
 Italian design
 Italian super cars
 Mass production of footwear

Model-based production design in film industry
 Modularity in design
 Package design in product development
 Photography as a design tool
 Plastics as an inexpensive material for product design
 Plastics in sportswear
 PVC
 Ready-made designs
 Redesigning for improved product properties
 Rendering
 Semiotics of form in furniture
 Sketching and the design process

Interior Architecture and Landscape Architecture Programmes

Art Deco and interior design
 Colour in interior design
 Concrete usage in landscape designs
 Design for environment(DFE)
 Glass walls in interior design
 Interior space in the Islamic architecture
 Modern landscape designs
 Modernism in interior architecture
 Natural landscaping
 Roof gardens
 Water element in landscape design

FACULTY OF MECHANICAL ENGINEERING

Mechanical Engineering Programme

ABS
 Active cooling systems
 Airbag systems
 Aluminium in the automotive industry
 Androids
 Arc-welding
 Automatic transmission
 Biodiesel
 Biomass
 Biomaterials
 Biomechanical arms
 Boosting fuel economy in automobiles
 BMW automobiles
 Ceramics in the automotive industry
 Common rail injection system motors
 Composite materials
 Computer Aided Technical Drawing Programs(CAD/CAM) for technical drawing
 Diesel engines
 Electronic navigation controls in cars

Electric vehicles
Electricity production by fuel cell
Elastomers in automotives
Emission control systems
Exhaust gas emission in internal combustion engines
Exoskeletons: Wearable robots
Fiber-reinforced composites, carbon fibers
Formula 1 safety
Fuel cell vehicles
Gas turbines
Harmful effects of elevated temperatures on the mechanical properties of metals
High power lines
Hot forming
Hybrid electrical vehicles
Hydraulic hybrid vehicles
Hydrogen as an alternative fuel
Hydrogen energy in vehicles
Importance of car handling
Intelligent transportation systems
KERS in Formula 1 races
LPG's advantages compared to gasoline
The mechanical design software "SolidWorks"
Methods of overcoming the corrosion problem
Motorcycle historical development
Nano-materials in Medical Engineering
Nanotechnology
Nanotechnology in daily life
Natural gas vehicles
Nuclear energy
Nuclear power plants
Ocean energy
Renewable energy sources
Robotics
Robotic welding
Robots for domestic needs
Rotary engines
Safety measures in automobiles
Shielded Metal Arc Welding(SMAW)
Solar energy
Solar-powered vehicles
Storing thermal energy beryllium
3D design
Titanium
Traction control systems
Wave energy
Wankel motors
Wind tunnels
Yamaha motorcycles

Manufacturing Engineering Programme

Computer controlled automation
 Computer numerical computer machines(CNC)
 Effects of computer controlled automation of complete manufacturing systems theories on
 useful industrial applications
 Just in Time(JIT)
 Metal welding

FACULTY OF ELECTRICAL AND ELECTRONIC ENGINEERING

Electrical and Electronic Engineering Programmes

ADSL
 ADSL-VDSL
 Artificial intelligence
 Building automation
 Benefits of digital TV
 Bluetooth-Wap
 Comparison of encryption systems
 Computers and the human brain
 Computers in animated films
 Digital pianos
 Digital television system
 DNA based computers
 DSP in communication
 DVD
 Dynamic web programming
 E-business/e-commerce
 E- government
 Electric motors
 Electrical vehicles
 Electromagnetic fields
 Electronic devices development
 Electronics in war
 Feedback control systems
 Fiber optic cables
 Flash and ajax web systems
 Fluorescent lamps' superior properties
 Genetic algorithm
 Global positioning system(GPS)
 Hackers and their activities
 Hybrid energy
 Hybrid vehicles
 Hydro electrical systems
 Hydrogen energy
 Intelligent vehicles
 IPTV
 Lasers in medicine
 Linux operation system

MAGLEV
Magnetic trains
Microcontrollers
Microprocessors
Microwave radiation
Mobile phones
MR
Multi-core processors
Multimedia systems
Nanotechnology in solar energy
Natural language processing
Neural networks
Nuclear power plants
Nuclear power security
Object-orientation in programming
Online games
Open source software usage
Palm computers
Peripheral interface controller (PIC)
Photovoltaics' advantages over grid systems
Programmable logic controllers(PLC)
Pokemon Gaming System
Radio frequency identification (RFIDs)
Remote sensing
Robotic arms
Robotics
Satellite communication
SCADA Systems
Security of e-commerce
Selection of high voltage circuit breakers
Sensors
Smart antennae
Smart cards
Smart houses
Solar power
Superconductors
Superiority of PHP over ASP on web programming
Telecommunications and human health
Thermal imaging cameras
Touch Screen technology
3G
Ultra wide-band devices
USB
Virtual reality in surgery
VOIP
Wind energy
Wind power for electricity generation
Wireless technology

FACULTY OF MINES

Mining Engineering, Geological Engineering and Geophysical Engineering Programmes

Active and passive structural control systems for earthquake resistant design
 Blasting technology
 Boron mineral
 Coal
 Cyanide
 Earthquake precautions
 Geophysical technologies for archaeological excavations
 Geothermal energy
 Government's role on earthquake precaution
 Granite as a building stone
 Leaching method in the enrichment of minerals
 North Anatolian Faultline
 Offshore petroleum platforms
 Offshore structure location
 Paleontology
 Pipeline transportation
 Pipeline transportation
 Positive/Negative effects of volcanoes
 Producing electric energy by coal
 Safety in mines
 Site amplification
 Surface mining
 Tunnel boring machines
 Tsunami
 Volcanic deposits and the Paleoenvironment
 Welding

Petroleum and Natural Gas Engineering Programme

Baku-Tiblisi-Ceyhan pipeline
 Oil production
 Long-term environmental effects of offshore oil & gas platforms
 Natural gas
 Petroleum pollution
 Pipelines
 Petroleum production today
 Storage of natural gas

FACULTY OF CHEMICAL AND METALLURGICAL ENGINEERING

Chemical Engineering, Metallurgical and Materials Engineering Programmes

Alloys
Aluminium
Atmospheric pollution
Benefits of liquid cooling
Benefits of recycling
Bioceramics
Bioengineering in medicine
Biological diversity
Biomass energy system
Ceramics
Ceramics as heat resistors
Composite materials
Cosmetic products
Enzymes
Fuel cells
Ginseng
The importance of the chemical industry for the economy
Methanol as an alternative fuel
Nanoscale science
Nanotechnology in industry
Negative effects of the waste of batteries
New materials in sports equipments
Nitinol
Organic chemistry
Pharmacological therapy in obesity treatment
Plastics
Polymers
Polyvinyl Chloride
Radioactivity and radiation
Recombinant DNA technology
Solar energy
Thermodynamics
Titanium
Transgenic plants

Food Engineering Programme

Childhood obesity
Colorants' harms on people's health
Consumption of fast food
Effects of caffeine
Food additives
Food chilling and freezing technologies
Food irradiation
Genetically modified foods
Harms of aspartame

Organic agriculture
 Paper and nylon as food packaging materials
 Turkish and Spanish wines
 Winemaking

FACULTY OF NAVAL ARCHITECTURE ENGINEERING

Naval Engineering and Ocean Engineering Programmes

Advantages of sailing boats over motorboats
 Boat building with wood
 Catamarans
 Catamarans compared to monohulls
 Composites in ship industry
 Consequences of disasters at sea
 Constructing offshore structures
 Container ships
 Controllable pitch propellers
 Diesel engines
 Dockyard safety
 Ecosystem
 Effects of oil usage
 Effects of petroleum pollution on the sea
 Fiber reinforced plastic(FRP)
 Fiberglass in yacht design
 Hazards of ship passes in the Bosphorous
 Luxury yachts
 Maritime piracy
 Megayachts
 Midwater trawling
 National commercial marine
 Ocean energy
 Offshore platforms
 Ro-Ros
 Solar energy applications on maritime vessels
 Waterjets
 Yacht design

FACULTY OF SCIENCE AND LETTERS

Mathematics Engineering Programme

Artificial intelligence
 Chaos Theory
 Egyptian mathematics
 Fuzzy logic
 Game theory
 Geometry in ancient cultures
 The Importance of maths for businesses
 Mathematics in architecture, art and music

The Number Pi
The origin of the Moon
RSA cryptosystem
Quantum theory

Physics Engineering Programme

Antimatter
Fusion energy
Black holes
Cold Fusion
Large Hydron Collider
Nanotechnology
Physics in medicine
Physics in movie making
Quantum computers
Quantum theory and its usage areas
Radiology in medicine
The relation between the Big Bang & Big Crunch theories
Types of tides
X-ray diffraction

Chemistry Programme

Aspartame
Biotechnology
Caffeine
Chemical weapons
Diet pills
Hydrogen as a fuel
Perfume industry
Phage cure in bacterial diseases
Porcelain enamels
Synthetic drugs/Antibiotics

Molecular Biology and Genetics Programme

Biological diversity on human health
Bioremediation
Biotechnology in daily
DNA technology
Evolution of the brain
Gene cloning in research and biotechnology
Genetically modified organisms
Human cloning
Importance of the p53 gene in oncological research
Ozone laundry systems
Psychiatric genetics
Sickle-cell Anaemia
Stem cells

FACULTY OF MANAGEMENT

Management Science & Industrial Engineering Programmes

Advantages of ergonomics on productivity
 Advantages of I/O psychology in ergonomics
 Automation systems
 Benefits of nuclear energy on the economies of countries
 Brand extension
 Branding
 Business process reengineering(BPR)
 Causes of bankruptcy
 Celebrity endorsement
 Chinese economy
 CIM
 CNC Systems
 Company mergers
 Computer integrated manufacturing
 Country of origin bias (COO)
 Credit cards
 The current 2008 economic crisis
 Customer relationship management (CRM)
 Database management systems
 Decision making process
 Doing business in global market
 E- commerce
 E-CRM
 Effects of advertisements on children and teenagers
 Effects of flexible manufacturing systems(FMS) on the working class
 Effects of human resources management on workers' productivity
 Effects of noise on workers
 Effects of the Second World War in business
 Effects of stress on employee-related outcomes
 Enron scandal
 Environmental conditions in man-machine systems
 Expert systems
 Foreign direct investment
 Franchising
 Fuzzy programming
 Globalisation and economy
 The global crisis and its negative effects on Turkey and the world
 Importance of databases
 Inflation
 Inflation and interest rates
 Innovations in new product development
 Inventory management in industry
 ISO 14000
 Istanbul Stock Exchange
 Japanese economy
 Job stress on humans

Just in time(JIT)
 Kanban sytems and their roles in Just-In-Time(JIT) manufacturing systems
 Knowledge management
 Leasing
 Liberalization of the world economy by globalisation in the 21st century
 LIN Manufacturing
 Management Components
 Management information systems(MIS)
 Money as a motivating factor
 Monopolistic structure
 MRPII
 Multinational companies
 NC Systems
 Organizational citizenship
 Positive effects of competitiveness on the production quality
 Power distinction
 Privatisation
 Project management
 Qualitative decision analysis
 Quality function development
 Research and development(R&D) department in a company
 Results of possessing a powerful brand
 Rewarding systems
 Risks of doing business in the global market
 Roles of interviewer in a job interview
 Servant leadership
 Six sigma
 The success of Red Bull
 Supply chain management(SCM)
 Sustainable product design
 Teamwork
 Technology and marketing
 TRIZ
 Turkey and the European Union
 Turkey as a profitable market
 Turkish economic crisis of 2001
 Ways of improving customer satisfaction
 Women leadership

FACULTY OF AERONAUTICS AND ASTRONAUTICS

Aeronautical Engineering & Astronautical Engineering Programmes

Airbus A380
 Asteroid mining
 Benefits of using helicopters to extinguish forest fires
 Cars that can fly
 Cold war space race
 Concorde
 Corrosion problem in aircraft industry

Dangers of volcanic ash on aircrafts
 Developments in space research
 Disadvantages of the new big Jumbo Jet
 Effects of September 11 attacks on the airline industry
 Electromagnetic launch systems for space travel
 GPS and Air Traffic Control
 Ground effect aircraft
 Guidance systems
 Hazards in space flights
 Human factor in aircraft accidents
 Human factors training
 Mars explorations
 Nanotechnology
 Reasons of aircraft accidents
 Robotics in space missions
 Rockets
 Solar sails
 Spy satellites
 Supersonic and hypersonic airplanes
 Turkish aviation industry
 Unmanned air vehicles
 Using composites in aircrafts
 VSTOL Aircraft
 Waste management in Space
 Wind turbines

Meteorological Engineering Programme

Climate changes
 Droughts and their impacts on agriculture
 Weather forecasts
 Hurricanes

FACULTY OF TEXTILE TECHNOLOGIES & DESIGN

Textile Engineering Programme

Anti-bacterial textiles
 China and the textile industry
 Cotton fiber
 Effects of liquid textile dyes on the environment and people
 Effects of textile industry wastes
 Fibrous composites
 Kevlar fiber
 Multimedia communication in textiles and clothing industry
 Nonwovens in human life with their portable properties
 Nano textiles
 Nylon fiber
 Polyester
 Sensor assisted textiles

Silk

Synthetic fibers

Solutions for saving the Turkish textile industry from China's negative influences

Technical textiles

Turkish textile industry

Wool