



MIDDLE EAST TECHNICAL UNIVERSITY



EUROPEAN COMMISSION PROJECTS

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3DTV Integrated Three-Dimensional Television – Capture, Transmission and Display

3DTV

www.3dtv-research.org/

Project Manager
AYDIN ALATAN

Project Type
EU FP – NoE

Total Budget
6.150.000,00 EUR

METU's Share
294.000,00 EUR

Department/Faculty
Department of Electrical and Electronics Engineering

Partnership
Partner

- The primary objective of 3DTVNoE is to align European researchers with diverse experience and activity in distinct, yet complementary, areas so that an effective network for achieving full scale 3D video capabilities integrated seamlessly to a more general information technology base (like internet) is established and kept functional for a long time.

Capturing three-dimensional visual information of a real-life scene and creating an exact (except the scale) optical duplicate of it at a remote site instantaneously, or at a later time, are ultimate goals in visual communications. All core and peripheral components related to this goal are collectively referred as “Three-Dimensional Television (3DTV)”. Main functional components of 3DTV are, “capture and representation of 3D scene information”, “complete definition of digital 3DTV signal”, “storage and transmission of this signal”, and finally the “display of the reproduced 3D scene”.

ABILITIES

Application Bus for Interoperability In Enlarged Europe SMEs

Project Manager
ASUMAN DOĞAÇ

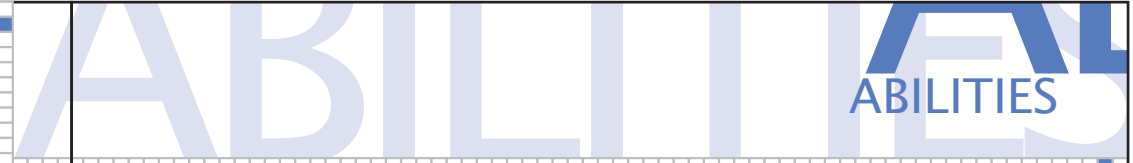
Project Type
EU FP-STREP

Total Budget
3.313.494,00 EUR

METU's Share
293.500,00 EUR

Department/Faculty
Department of Computer Engineering

Partnership
Partner



ABILITIES

www.srdc.metu.edu.tr

- The basic goal of the present ABILITIES (Application Bus for Interoperability In enlarged Europe SMEs) proposal is to study, design and develop a federated architecture implemented by a set of intelligent and adaptive UBL active messages (an Application Bus for EAI) and basic interoperability services, which aims at supporting SMEs EAI in e-commerce contexts, specifically in less developed Countries and less RTD intensive industrial sectors. ABILITIES will address three research streams: Orientation towards Enlarged Europe SMEs (starting from OASIS' UBL 1.0 specifications, defining a generic XML interchange format for business documents to support a typical order-to-invoice procurement cycle, ABILITIES will make UBL suitable for Enlarged Europe industrial SMEs and will change, extend, and adapt UBL where necessary for this purpose), Federated Architecture and Intelligent Business Documents, Service Orchestration and Business Process support. In addition, ABILITIES will test and validate such technologies in real-life SMEs-driven business scenarios located in New Member States and implement: Collaborative business and co-operative work scenarios for small entrepreneurs (Retail and Tourism) in Lithuania; Business process development and interconnection for High-Tech SMEs in Slovakia; Mobile and ubiquitous work support in multi-customer distribution Agro-food SMEs networks in Turkey; XML-based interactive and adaptive e-business Document exchange (MODA-ML) for the Textile-Clothing SMEs supply chain in Romania; Semantic content reconciliation for Tourism SMEs in Hungary.

AMICOM

Advanced MEMS For RF and
Millimetre Wave Communications

Project Manager
TAYFUN AKIN

Project Type
EU FP-NoE

Total Budget
5.499.124,00 EUR

METU's Share
145.053,00 EUR

Department/Faculty
Department of Electrical and Electronics Engineering

Partnership
Partner

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AMICOM

www.amicom.info

The society of information results in a tremendous increase of the number of wireless application combining communication and sensing functionalities, which ends up in sort of “communication traffic jam”. As direct consequence of the demanding communication requirements an increase of the allocated frequency up to millimetre wave range, and a growing need of managing multi-standards functionalities terminals is taking place. On the other hand, the emerging role of ambient intelligence has rose the need of miniaturized and disseminated intelligent “node” endowed of connectivity and sensing capabilities. It is understood that conventional solutions are exhibiting some limitations and the last five years have seen the emergence of a new type of technology called “MicroElectroMechanical Systems: MEMS” associating mechanical and electrical behaviour in order to get module featuring advanced performances.

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ARTEMIS

Semantic Web Service-based P2P
Infrastructure for the Interoperability of
Medical Information

Project Manager
ASUMAN DOĞAÇ

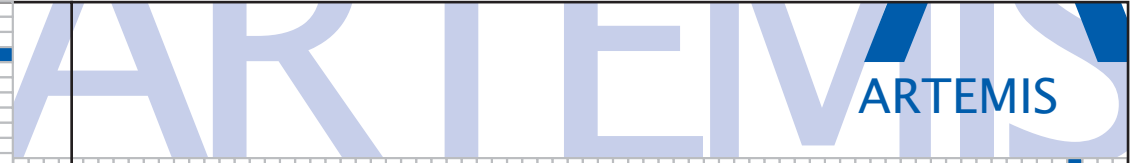
Project Type
EU FP-STREP

Total Budget
1.989.000,00 EUR

METU's Share
469.300,00 EUR

Department/Faculty
Department of Computer Engineering

Partnership
Coordinator



www.srdc.metu.edu.tr/webpage/projects/artemis/

The objective of the ARTEMIS project is to develop a semantic Web services based interoperability framework for the healthcare domain. We take a highly innovative approach regarding the interoperability of medical information systems with respect to the current approaches. We focus on processes in terms of Web services rather than recording and documentation of electronic health records. In other words, our approach allows a standard way of accessing the data since there are very many standards that need to work together. The interoperability problems of medical information systems are two fold: First there are multiple, incompatible, proprietary approaches to connecting disparate applications. Secondly, there are more than one standard to represent the same information, which in turn creates an interoperability problem. ARTEMIS project provides the healthcare industry with an ideal platform to achieve difficult integration problems. Our Web service model encapsulates already existing applications and access to documents in a standard way and incorporates service providers, service consumers and service registries. Currently most prominent Web service registries are Universal Description, Discovery, Integration (UDDI) and electronic business XML (ebXML). There are also very recent efforts to use Peer-to-peer networks based on Web services. However both service registries and P2P architectures available do not provide semantically enriched search capabilities. In the ARTEMIS project we provide extensions to these architectures to enable discovery of the Web services based on their semantic descriptions.

AVICENNA VIRTUAL CAMPUS

Project Manager
NEŞE YALABIK

Project Type
UNESCO

Total Budget
111.646,00 EUR

METU's Share
38.070,00 EUR

Department/Faculty
Graduate School of Informatics

Partnership
Director

AVICENNA VIRTUAL CAMPUS

<http://avicenna.ii.metu.edu.tr>

- Develop a strategic policy for the implementation of the AVICENNA Network, Launch and ensure in co-operation with the open university the monitoring of the production of multimedia educational courses within the AVICENNA Centres.

The AVICENNA project intends to create a Euro-Mediterranean network of universities for open distance learning. The aim of the AVICENNA project is to accelerate the adoption and use of ICT-assisted Open Distance Learning (ODL) in eleven Mediterranean non-EU Member States (MNMS).

Demand for ODL in the target universities and societies is clearly identified, as ODL may bring wider access to University-based initial and continuing education. The network organization will be stimulated and comforted by the engagement of some of the EU's leading open universities, under the aegis of UNESCO. The AVICENNA project aims at building up a networked ODL production and communication platform adjusted to a multicultural and multilingual environment

BIOPOLYSURF

Engineering advanced polymeric surfaces for smart systems in biomedicine, biology, material science and nanotechnology: A cross-disciplinary approach of Biology, Chemistry and Physics

Project Manager
VASIF HASIRCI

Project Type
RESEARCH TRAINING NETWORK

Total Budget
3.473.926,00 EUR

METU's Share
233.455,00 EUR

Department/Faculty
Department of Biology

Partnership
Partner



BIOPOLYSURF

www.biomed.metu.edu.tr

- Biopolysurf is a RTN planned to facilitate the exchange of expertise and knowledge between top-notch groups coming from these three disciplines as a way to achieve a privileged excellence in Nanobiotechnology and to establish a high quality training and truly multidisciplinary platform for young and experienced researches. With a strong basement on biological, chemical and physical foundations, our main goal will be the engineering of advanced polymeric surfaces for smart systems in biomedicine, biology, material science and nanotechnology by assembling molecules and nano-objects into functional patterns.

Black Sea SCENE

Black Sea Scientific Network

Project Manager
ŞÜKRÜ BEŞİKTEPE

Project Type
EU RESEARCH INFRASTRUCTURES

Total Budget
2.000.000,00 EUR

METU's Share
82.365,00 EUR

Department/Faculty
Graduate School of Marine Sciences

Partnership
Partner

Black Sea SCENE

- The Black Sea SCENE project aims to establish a Black Sea Scientific Network of leading environmental and socio-economic research institutes, universities and NGO's from the countries around the Black Sea and to develop a virtual data and information infrastructure that will be populated and maintained by these organisations to improve the identification, access, exchange, quality indication and use of their data and information about the Black Sea. The Black Sea SCENE research infrastructure will stimulate scientific cooperation, exchange of knowledge and expertise, and strengthen the regional capacity and performance of marine environmental data & information management, underpin harmonization with European marine data quality control/assessment procedures and adoption of international meta-data standards and data-management practices, providing improved data & information delivery services for the Black Sea region at a European level.

BRANCABIKA

BRugge, ANkara, CAnterbury, Blalystok
and KAiserslautern



www.brancabika.org

Project Manager
CANA BİLSEL/SEVİN OSMAY

Project Type
EU –Erasmus–European mobility Programmes – Intensive Programme (IP)

Total Budget
97.816,00 EUR

METU's Share
19.900,00 EUR

Department/Faculty
Departments of Architecture & City and Regional Planning

Partnership
Partner

BRANCABIKA is an educational project realized within the framework of EU–Erasmus mobility programmes, intended for students at undergraduate as well as graduate level. Within the project social and economical cohesion, language learning, lifelong and e–learning are embedded as transversal policies. The acronym BRANCABIKA stands for BRugge, ANkara, CAnterbury, Blalystok and KAiserslautern, cities where the institutes of higher education participating in the project are located. During ten day period, fifty students and ten members of staff from five countries provide a European dimension to the project from the world of architecture and city planning. Dynamic individual and group input is required. There is significant use of ICT. “Modular housing system for starters” is the theme of the first workshop that took place in Brugge (Belgium) between 18–27 April 2005 (European Commission reference 27931–IC–1–2003–1–BE–ERASMUS–IPUC–11). Within the framework of rules and principles of sustainability, a flexible as well as extendible modular housing system for people starting on the housing market is developed. The theme of the second workshop that will be held at METU Faculty of Architecture in Ankara between 5–15 March 2006 (European Commission 27931–IC–2–2004–1–BE–ERASMUS–IPUC–11) is “low cost housing for low income groups in disaster prone areas: Sustainable Neighbourhood and Housing Design in Ankara”. The transformation/regeneration of the old squatter housing stock that contemporary metropolitan cities in Turkey are confronted with is the context of the design problem that will be dealt with in the Ankara 2006 workshop. Within the project, alternative models for low cost, low income housing will be developed.

CEN-CENRE

Transformation of Social Policy in Europe: Patterns, Issues and Challenges for EU-25 and Candidate Countries

Project Manager
FERIDE ACAR

Project Type
JEAN MONNET-ERASMUS

Total Budget
84.290,00 EUR

METU's Share
84.290,00 EUR

Department/Faculty
Department of Political Science and Public Administration

Partnership
Director

CEN-CENRE

This project is developed as a response to the need for knowledge about the "Transformation of Social Policy in Europe". We perceive such transformation as a two way relationship within the process of European integration, between the EU and its member states and candidate countries. The project, through its main activity, the Conference, aims at providing an academic platform for reflection and debate on various aspects of social policy, which has been a hot European issue for last two decades or more, especially from the perspective of new member states and the candidate countries to the EU.

CES-CER

Enhancing The Comparative Research
Capacity Of The CES

Project Manager
ATILLA ERALP

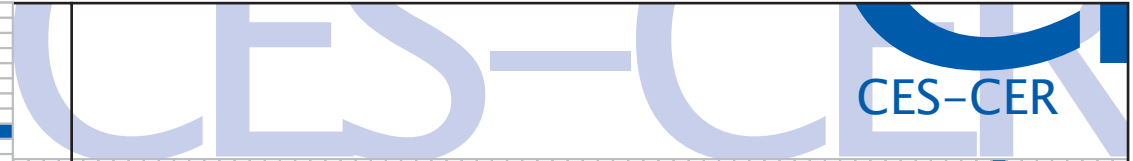
Project Type
EU FP-SSA

Total Budget
699.185,00 EUR

METU's Share
699.185,00 EUR

Department/Faculty
EU Studies

Partnership
Director



CES-CER

- The project aims at enhancing the research capacity of the Centre for European Studies (CES) at the Middle East Technical University (METU) in Ankara, Turkey to the standards for a centre of excellence in European studies. Having already established itself as one of the leading centres for European studies in Turkey, the CES aims to promote the development of an interdisciplinary environment conducive for studying and researching the processes of European integration in a comparative manner. The CES, located at METU which is reputed as one of the most prestigious research universities in Turkey, benefits from the research activities of several departments of the university. While promoting academic specialisation in issues of European integration and governance, the CES aims to collaborate with other institutions in Europe via joint projects.

CLIOHRES

Creating Links and Innovative
Overviews for a New History Research
Agenda for the Citizens of a Growing
Europe

Project Manager
ALİ UZAY PEKER

Project Type
EU FP NOE

Total Budget
4.500.000,00 EUR

METU's Share
75.000,00 EUR

Department/Faculty
Department of Architecture

Partnership
Director

CLIOHRES

www.clioh.net

“Creating Links and Innovative Overviews for a New History Research Agenda for the Citizens of a Growing Europe” is a Sixth Framework Programme Network of Excellence organized by a group of 45 universities, many of which are CLIOHnet members. A five year project, it aims at achieving and disseminating greater understanding of both the actual histories and the self-representations of the past current in Europe today, highlighting both diversities and connections and explaining the context of their development. It brings together historians, geographers, art historians, linguists, theologians, philologists, sociologists and philosophers in order to explore how differences, connections, conflicts and positive interaction have developed in the past and can develop in the future. It involves 180 research staff and doctoral students from 31 countries. (<http://www.cliohres.net/>)

CORNEA

THREE-DIMENSIONAL RECONSTRUCTION OF HUMAN CORNEAS BY TISSUE ENGINEERING

Project Manager
VASIF HASIRCI

Project Type
EU FP-STREP

Total Budget
2.558.797,00 EUR

METU's Share
120.000,00 EUR

Department/Faculty
Department of Biology

Partnership
Partner

The ultimate aim of the project is to reconstruct a human cornea in vitro, for use both in corneal grafting and as an alternative to animal models for cosme-to-pharmacotoxicity testing. The project responds to the urgent need to develop new forms of corneal replacements as alternatives to the use of donor corneas, in view of the world-wide shortage of donors, the increasing risk of transmissible diseases, the widespread use of corrective surgery which renders corneas unsuitable for grafting, and the severe limitations of currently available synthetic polymer-based artificial corneas. It also responds to impending EU legislation banning the marketing of cosmetic products that have been tested on animals, using procedures such as the Draize rabbit eye irritation test. The development of tissue engineered corneas will provide a non-animal alternative which will therefore alleviate animal suffering. The originality of the project lies in the use of recombinant human extracellular matrix proteins to build a nano-engineered scaffold to support growth of the different cell types found in the cornea, cells to be derived from human adult stem cell pools. The development of a reconstructed human cornea will represent a real breakthrough, allowing diseased or damaged corneas to be replaced by tissue-engineered human corneal equivalents that resemble in all respects their natural counterparts. The project will lead to a transformation of industry meeting societal needs using innovative, knowledge-based approaches integrating nanotechnology and biotechnology, bringing together 14 participants with complementary expertise from 9 different countries, including basic scientists, ophthalmologists and industrialists.

CyBER Capacity Building in Earthquake Research

Project Manager
HALUK SUCUOĞLU

Project Type
EU FP-SSA

Total Budget
650.000,00 EUR

METU's Share
650.000,00 EUR

Department/Faculty
Department of Civil Engineering

Partnership
Director

CyBER

- Severe earthquakes that affect urban settlements cause significant losses of life and property. During the 1999 Marmara earthquakes in Turkey, poor performance of vulnerable buildings claimed 20,000 lives and caused direct economical losses of 11 Billion Euros. When the existing risks are concerned, Istanbul is considered as being under very high seismic risk due to both the heightened odds of a major earthquake along the Marmara Sea, and its huge building stock consisting of one million buildings most of which are judged as seismically unsafe.

DAEDALUS

Delivery of Mediterranean Destination
Links in Unified Environments



DAEDALUS

<http://laplace.intrasoft-intl.com/daedalus/source/>

Project Manager
ASUMAN DOĞAÇ

Project Type
EUMEDIS

Total Budget
2.008.294,33 EUR

METU's Share
224.669,00 EUR

Department/Faculty
Department of Computer Engineering

Partnership
Partner

27

The Daedalus project makes a contribution to promote and improve the Mediterranean tourism sector tied to its rich cultural heritage. The goal of this project is to provide the professionals and the mass market with a flexible, dynamic, cost-effective, easy to deploy Mediterranean reference framework that enables the establishment and the management of local communities of interest working in the area of tourism and culture heritage. Daedalus project establishes a federated network of Tourism and Cultural related infoservices providers, combining both national-level and regional sites.

This project is in particular concerned with the enhancement of the Tourism sector.

Therefore the project:

- Design and implement a single one stop shop entry point, the Daedalus portal, for the linkage with the global tourism and cultural heritage community;
- Set up 8 national Mediterranean service centres, in Cyprus, Egypt, France, Israel, Italy, Jordan, Tunisia, Turkey;
- Finally it creates Mediterranean tourism and cultural heritage communities of interest.

In addition to these objectives the project integrates the overall Daedalus network implementation and project rolling out with the other projects falling within the scope of the Eumedis initiative on Tourism and Cultural Heritage. These projects (Daedalus, Medina, Strabon, Networked Journey) participates in a clustering and integration in the following areas: Content data, Infrastructures and technologies, Local cooperation and training , Sustainability and follow up.

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DEC Doctoral Education in Computing

DEC

<http://ecet.ecs.ru.acad.bg/etndec/>

Project Manager
AYŞE KİPER

Project Type
SOCRATES Erasmus Thematic Network

Total Budget
1.007.490,00 EUR

METU's Share
2.000,00 EUR

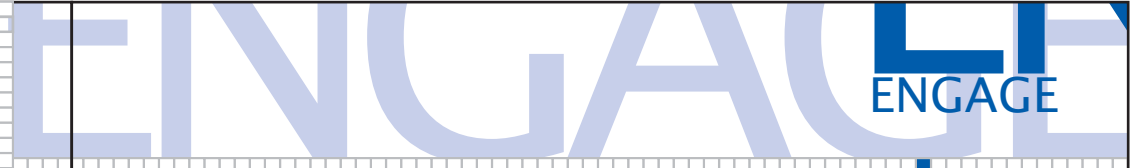
Department/Faculty
Department of Computer Engineering

Partnership
Partner

- The main goal of the project is to help acknowledge doctoral studies as an important "third" cycle of education, to define a framework for increasing the quality of all doctoral studies and develop tools and methods for assessment, validation and certification of the knowledge and skills of PhD students.

The overall objectives of the network are to establish the principles of effective, high quality, Europe-valid doctoral studies and to create the tools for doing this through analysing the existing systems, exchanging experiences and disseminating good practices among all partners.

ENGAGE Engineering Emotinal Design



ENGAGE

www.engage-design.org

Project Manager
GÜLAY HASDOĞAN

Project Type
EU FP-CA

Total Budget
600.000,00 EUR

METU's Share
10.380,00 EUR

Department/Faculty
Department of Architecture

Partnership
Partner

- The project aims to open the EU industry towards a knowledge-based economy in the area of satisfying people's subjective and emotional lifestyle needs through a holistic approach and to enhance the use and development of novel tools, methods and work environments that facilitate collaboration and creativity during all the value creation stages from conception, design configuration till marketing and distribution focusing on satisfying emotional user needs from a holistic approach.

ENGAGE Objectives

- 1-Gather existing expertise & create a knowledge community
- 2-Promote shared insight & establish a common language
- 3-Classify methods and discuss industrial applicability & provide best practices

- *Construct an inventory of expertise
- *Classify problems found by researchers and practitioners
- *Set up groups of experts and special interest groups (SIGs)
- *Produce a classification of methods and tools
- *Evaluate existing methods and tools

- 4-Identify gaps in current methods and tools & promote future research in this area

EUDIMENSION

Local Dimensions of a Wider European Neighbourhood: Developing Political Community through Practices and Discourses of Cross-Border Co-operation

Project Manager
AYŞE AYATA / AYÇA ERGUN

Project Type
STREP (Specific Targeted Research Project)

Total Budget

METU's Share

Department/Faculty
KORA (Center for Black Sea and Central Asia)

Partnership
Partner

EUDIMENSION

With the concept of generally known as “Wider Europe”, the European Union has mapped out an ambitious vision of regional “Neighbourhood” that “goes beyond co-operation to involve a significant measure of economic and political integration”. Furthermore, the EU sees this new quality of regional interaction and partnerships as bringing “enormous gains to all involved in terms of increased stability, security and well being”. EUDIMENSIONS seeks to understand the implications of these new geopolitical contexts for cross-border political relationships at the local level. More specifically, the development of a “Wider European” political community, as manifested by co-operation initiatives and changing political discourses that relate localities and groups to each other across national and EU borders, will be scrutinised.

EUDIMENSIONS will perform this task by analysing co-operation processes and the multilevel contexts within which they operate - this includes the role of the EU in conditioning relationships within the Neighbourhood. Case studies will focus both on specific communities and the cross-border co-operation networks that often transcend local, regional and national levels in order to advance their agendas. In addition, the focus will also be on civil society and gender-specific issues, aspects that require greater attention in studies of cross-border co-operation.

EU-MED AGPOL

Impact of Agricultural Trade Liberalization between the EU and Mediterranean Countries

Project Manager
EROL ÇAKMAK

Project Type
EU FP-STREP

Total Budget
960.000,00 EUR

METU's Share
86.600,00 EUR

Department/Faculty
Department of Economics

Partnership
Partner

EU-MED AGPOL

<http://eumed-agpol.iamm.fr/>

- The overall objective of this Project is to estimate and describe the impact on European countries of agricultural trade liberalization in the Mediterranean region. The major changes to be expected are increased EU imports of fruits, vegetables and olive oil and increased EU exports of cereals, meats and milk products.

Estimation of changes in exports of cereals, meats, and milk products will be done using the CAPRI model. For fruits, vegetables and olive oil, available quantitative models are not sufficient to properly capture the complexity of the phenomena involved (many different products, various seasonal patterns, complex detailed trade regimes). Expert panels for the Mediterranean countries with substantial export potential will be used to complement modeling approaches done at the country level.

EUROPE AS AN ITEM ON THE IDENTITY CARD

Project Manager
ALİ GİTMEZ

Project Type
JEAN MONNET ACTION

Total Budget
27.490,00 EUR

METU's Share
27.490,00 EUR

Department/Faculty
EU Studies

Partnership
Director

EUROPE AS AN ITEM ON THE IDENTITY CARD

- The applicant organization has been involved in various national and international activities in the 2002–2003 academic year including organization of seminar, workshops, implementation of Training Program on “The Enlargement Process of the European Union and Turkey” and the Project of “Researching Europe: European Integration by the View of Young Researchers”

GLOMIG

Global Migration from the Eastern Mediterranean and Eurasia: Security and Human Rights Challenges to Europe

Project Manager
AYŞE AYATA

Project Type
SSA (Specific Support Action)

Total Budget
249.999,60 EUR

METU's Share
161.200,00 EUR

Department/Faculty
KORA (Center for Black Sea and Central Asia)

Partnership
Coordinator

GLOMIG

The main objective of the GLOMIG Project is to foster international cooperation between the EU and the INCO countries by organising workshops, forming expert groups, and providing policy recommendations to policy makers, officials, representatives of international, regional and non-governmental organisations (NGO) and other stakeholders on global migration. The project focuses on the Western Balkans; Caucasus; Russia, Eastern Mediterranean and Turkey. More specifically, the project aims to contribute to the European Research Area through the creation of a common platform. It will enable interested parties from the EU and above-mentioned INCO countries to share their insights, experiences, and know-how on migration. Towards this aim, the Centre for Black Sea and Central Asia (KORA) of the Middle East Technical University and its partner institutions will organise workshops in order to provide a milieu for interaction for academics, policy-makers, and NGO representatives through which they can develop new strategies for dealing with problems related to global migration and formulate policy recommendations. Addressing the Research Area 8.3.3 of the Work Programme of Priority 7 Citizens and Governance in a knowledge based society, the GLOMIG aims to promote and facilitate comparative, collaborative, and interdisciplinary approaches to global migration and its opportunities and challenges in terms for the EU and the INCO countries.

GRAND

GOOS Regional Alliances Networking
Development

Project Manager
ŞÜKRÜ BEŞİKTEPE

Project Type
EU SSA

Total Budget
440.000,00 EUR

METU's Share
22.000,00 EUR

Department/Faculty
Graduate School of Marine Sciences

Partnership
Partner

GRAND

GRAND brings together all GOOS Regional Alliances (GRAs), the major international organisations related to GOOS (IOC, JCOMM, I-GOOS), the network of the largest ocean institutions (POGO). The partnership covers all the oceans on Earth to provide a forum, led by Europe, to harmonise the diverse regional systems within GOOS, while advancing the European contribution to the global system.

GRAND will facilitate the dissemination of best practice, technology transfer, development of international co-operation, establishment of observing systems in developing countries, application of results of EU projects to the broader international community active in the GRAs. This will help to strengthen the role of the EU on the international stage while contributing to the integration and strengthening of the European Research Area.

HAMMAM

Aspects and Multidisciplinary
Methods of Analysis for the
Mediterranean Region

Project Manager
EMİNE CANER SALTİK

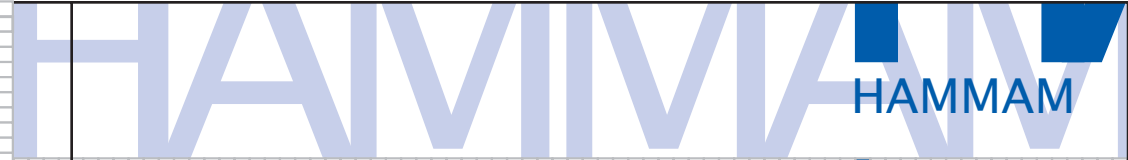
Project Type
INCO

Total Budget
1.900.000,00 EUR

METU's Share
96.000,00 EUR

Department/Faculty
Department of Architecture

Partnership
Partner



HAMMAM

- The project will integrate architectural and technological considerations with the socio cultural dimensions in order to ensure ways of sustainable restoration of these cultural heritage sites.

The HAMMAM project is intended to built a strong participatory basis, including the local dwellers into the generation of knowledge. Hence, the process of participation shall be sustained into the future.

Ankara case study team members will study Şengül Hamamı for its socio-cultural and operational aspects as well as its maintenance problems to help with its sustainable conservation.

The previous case studies of the METU Materials Conservation Laboratory research group on various Ottoman hammam buildings will be used and extended for better planning of the sustainable conservation.

HYVOLUTION

Non-thermal production of pure hydrogen from biomass



HYVOLUTION

www.biohydrogen.nl/hyvolution/

Project Manager
INCI EROĞLU

Project Type
EU FP IP

Total Budget
9.492.000,00 EUR

METU's Share
621.000,00 EUR

Department/Faculty
Department of Chemical Engineering

Partnership
Coordinator

- The aim of HYVOLUTION: "Development of a blue-print for an industrial bioprocess for decentral hydrogen production from locally produced biomass" adds to the number and diversity of H₂ production routes giving greater security of supply at the local and regional level. Moreover, this IP contributes a complementary strategy to fulfil the increased demand for renewable hydrogen expected in the transition to the Hydrogen Economy. The novel approach in HYVOLUTION is based on a combined bioprocess employing thermophilic and phototrophic bacteria, to provide the highest hydrogen production efficiency in small-scale, cost effective industries.

IASON International Action for Sustainability of the Mediterranean and Black Sea Environment

Project Manager
EMİN ÖZSOY

Project Type
EU FP-STREP

Total Budget
45.250,00 EUR

METU's Share
45.250,00 EUR

Department/Faculty
Graduate School of Marine Sciences

Partnership
Partner

■ Cooperation with Balkan countries on environmental issues is one of the priorities of the EU/Balkan Action Plan. If any effective action is to take place, then large-scale co-operation in the vulnerable Mediterranean and Black Sea coastal zones is essential. There have been major changes in both areas over the last fifty years; as semi-enclosed basins, both Seas are very sensitive to anthropogenic stress and also to climate change.

An EU (Presidency) Conference on Sustainable Development in the Mediterranean/Black Sea (May 2003), revealed major gaps in management structures, scientific strategies and identified a number of environmental issues that had the potential to be resolved through priority-focused RTD cooperation. However, at a time when pressure on the resources of the two Seas increases and the potential impact of climate change on coastal and deep-sea resources remains unknown, the two Seas have never been jointly studied as systems of interacting basins and ecosystems.

In order to create synergies in networking and exchanges at several levels, the IASON project aims to create collaborative, clustering schemes in which environmental, economic and scientific organisations in Mediterranean, Black Sea and other EU nations will participate. Such a modus operandi will allow the IASON project to address for the first time the system of interconnected basins in an integrated way.

ICLASS

Intelligent Distuted Cognitive-based
Open Learning System for Schools

Project Manager
GÖZDE BOZDAĞI AKAR

Project Type
EU FP-IP

Total Budget
8.999.997,00 EUR

METU's Share
90.000,00 EUR

Department/Faculty
Department of Electrical and Electronics Engineering

Partnership
Partner



ICLASS

www.iclass.info

- The iClass project will develop an intelligent cognitive-based open learning system and environment, adapted to individual learners' needs and ensure their take-up in the education sector at a European level.

iClass Project is funded under the FP6, the European Community Framework Programme for Research, Technological Development and Demonstration. It is in the Technology-enhanced learning and access to cultural heritage action line, and is one of the two integrated projects in the area of education. The efforts will, by envisioning the educational process of the future, involve the following: (1) extensive research for the definition and design of next generation products and services, (2) the creation and testing of prototypes, (3) and the measurement of the impact to ensure effective utilization of technology in pre-university education

IME Industrial Mineral Exploration

Project Manager
BORA ROJAY / TÜLAY ROJAY

Project Type
EU–Leonardo da Vinci Program–Mobility Project

Total Budget
6.750,00 EUR

METU's Share
6.750,00 EUR

Department/Faculty
Department of Geological Engineering

Partnership
Director

Companies operating in industrial mineral exploration are seeking for staff equipped with skills of working in the field, application of analytical analysis in labs and organizing of a proper economical survey programs in the field of exploration in new discoveries of industrial mineral deposits. Objective is to provide a ground for the students to apply the theoretical information they gained, to improve the skills of the newly graduates in advance research possibilities and new technological advances on site in Germany, to motivate young graduates to work in international EU atmospheres, encourage young generation to get acquainted to different work cultures and systems, to get to know different cultures and to represent their own culture and to increase the young graduates' competences, especially in economic tasks, hence to have opportunities to find better positions in the job market. The partner –Knauf, an internationally operating company based in Germany– will have opportunity to get in contact with graduates from different EU candidate countries, to train the graduates in advanced Industrial Mineral Exploration procedures, to present company's way of practicing mining exploration to new generation and to establish links with the young workers for possible future connections in the area of industrial mining. The duration of the Project was 6 months including 13 weeks for training in Germany (placement).

INDSAFE Industrial Safety and Health for SMEs

Project Manager
TAYYAR ŞEN

Project Type
ECA-GDLN Course delivery

Total Budget
4.990,00 EUR

METU's Share
4.990,00 EUR

Department/Faculty
Department of Industrial Engineering

Partnership
Partner

The program is designed to convey the basic knowledge regarding industrial safety and health issues to the owners and managers of the small and medium-sized enterprises (SMEs). It is fact that, due to their small sizes and limited staff, they cannot afford to employ safety engineers on site. By this program, they will have the basics for establishing their safety programs that would minimize their costs arising from losses due to industrial accidents. The program is designed for a total of 30 hours, consisting of 5 modules as explained in the following section. The lectures, accompanied by PowerPoint presentations, video clips and PDF document files, will be delivered through the multimedia classroom of Middle East Technical University and can be attended via the internet. This way, by proper announcements to the SMEs worldwide, the course can reach to a very large audience in a relatively short time. Those SMEs within the vicinity of video-conferencing facilitated classrooms at the GDLN Participant countries can attend the lectures in an interactive manner. Due to limited time for the preparation of the course, the lectures will be given by local experts in the first iteration. In the meantime, invitations will be sent to the GDLN participant countries to update the content and facilitate international contributions.

Project Manager
ÖZCAN ESMER

Project Type
EU FP-STREP

Total Budget
1.000.000,00 EUR

METU's Share
52.000,00 EUR

Department/Faculty
Department of City and Regional Planning

Partnership
Partner

- Project has commenced in April 2004, as a STREP type in the Priority 1.1.6.3– Global Change & Ecosystems of the FP6. TAU Group (Madrid) is the coordinator of the Consortium of 8 partners. The main objective of the project is to develop a methodological approach for a common flexible framework for sustainable indicators aimed at monitoring progress towards the European Sustainable Development Strategy at the regional scale. The methodology used shall be tested in 4 case studies including the Antalya Province from Turkey.

The system dynamic approach which underpins INSURE approach has potential for a unifying and scientific representation of SD at the regional level. Instead of just measuring the 'symptoms' through SD indicators, the project tries to get to the 'causes' with a more fundamental understanding of the region as a system. This shows how economic sectors, spatial development, environmental pressures and social trends are all inter-linked and inter-dependent.

IRC-ANATOLIA

The Establishment of an Innovation Relay Centre in Southeast, Middle and East Anatolia Regions of Turkey

Project Manager
UĞUR YÜKSEL

Project Type
EU FP-SSA

Total Budget
1.700.000,00 EUR

METUTECH's Share
598.800,00 EUR

Department/Faculty
METUTECH

Partnership
Coordinator

- The mission of Innovation Relay Centres (IRCs) is to facilitate innovation all around Europe with specialized business services which support the cross-border transfer of new technologies. These services are primarily targeted at technology-oriented small and medium-sized enterprises (SMEs), but they are also available to larger firms, research institutes, universities and technology centers.

Today, 71 IRCs cover a wider geographical area than any other technology transfer network in the world. Their success in stimulating transnational technology transfer – based on brand recognition, close links with enterprises and universities, and the effectiveness of the tools and procedures developed by the network – is unique. These IRCs are connected by intranet which allows rapid diffusion of technology profiles across Europe, from a searchable database.

Being one of Turkey's Innovation Relay Centres established in April 2004, the IRC Anatolia Consortium is formed by METU-Technopolis (the coordinator), Turkey's first and biggest science park, Small and Medium Industry Development Organisation (KOSGEB), a semi government organisation, and Ankara Chamber of Industry (ASO). IRC-Anatolia covers almost half of Turkey from the centre to the borders of the Blacksea Region, and from the Mediterranean shores to the southeast region. This territory shall be managed through eight cities, each of which has one sub-region. This missional region of IRC-Anatolia includes Ankara (the capital city of Turkey) , Adana, Çorum, Eskişehir, Gaziantep, Kayseri, Konya and Samsun. Node offices in each city operates within its specific region and the surroundings.

The main purpose of IRC Anatolia is to develop mutually profitable business alliances, and to help SMEs to find suitable technology partners or suppliers.

ISTBONUS

Identify and Support Research and Business Excellence to Enhance NMS – ACC Participation in the Development and Pilot Implementation–Demonstration of ICT Business Applications and Services

Project Manager
ASUMAN DOĞAÇ

Project Type
EU FP–SSA

Total Budget
850.000,00 EUR

METU's Share
103.664,00 EUR

Department/Faculty
Department of Computer Engineering

Partnership
Partner

ISTBONUS

www.ist-bonus.net

The major objective of IST–BONUS is to upgrade the participation of organisations from the NMS & ACC to the IST Priority both in quantitative and qualitative terms, particularly regarding two wide areas: ebusiness and e–working technologies and related state–of–the–art applications; which can have significant impact on Europe's competitiveness, sustainability and societal cohesion. IST–BONUS aims to facilitate the transition of competent NMS & ACC organizations from 'research followers' to 'research leaders' (coordinators or major partners of RTD projects). To achieve this ambitious endeavour IST–BONUS implements actions sufficiently including: (i) 'conventional' activities – targeting to a large number of interested organisations and (ii) 'go beyond' activities based on a set of 'Research BONUS' Services (Audits, SWOTs, PR research profiles, Action plans and Roadmaps to excellence in IST, networking with EU–15 research leaders and EC services) – targeting to a selective number of highly motivated and competent organisations. The 'conventional' activities concentrate on increasing participation mainly in quantitative terms. Under this approach, activities escalate in 3 levels of maturity: (a) Promotion / publicity and awareness creation, (b) Info–days, tutorials and (c) Networking / brokerage events within the context of international IST conferences. The 'go beyond' activities focus particularly on qualitative terms targeting to increase the number of (i) highly networked organisations from the NMS & ACC, (ii) major research players and (iii) competent coordinators focusing primarily on IPs and NoE.

LESSLOSS

Risk Mitigation for Earthquakes and Landslides

Project Manager
POLAT GÜLKAN

Project Type
EU FP-IP

Total Budget
6.400.000,00 EUR

METU's Share
140.800,00 EUR

Department/Faculty
Department of Civil Engineering

Partnership
Partner



LESSLOSS

www.lessloss.org

- LESSLOSS is a European Integrated Project focusing on Risk Mitigation for Earthquakes and Landslides that relies on the active participation of 46 European partners from both academia and industry. The LESSLOSS project addresses natural disasters, risk and impact assessment, natural hazard monitoring, mapping and management strategies, improved disaster preparedness and mitigation, development of advanced methods for risk assessment, methods of appraising environmental quality and relevant pre-normative research.

The research/innovation effort within the LESSLOSS project comprises a number of different research components, or Sub-Projects, related with landslides monitoring, warning systems, zonation, vulnerability assessment, modelling of losses, seismic isolators, energy dissipation devices, displacement-based design methodologies, etc.

MACS

Multi-sensory Autonomous Cognitive Systems Interacting with Dynamic Environments for Perceiving and Using Affordances

Project Manager
EROL ŞAHİN

Project Type
EU FP-STREP

Total Budget
2.566.710,00 EUR

METU's Share
306.000,00 EUR

Department/Faculty
Department of Computer Engineering

Partnership
Partner



www.macs-eu.org

- The main objective of the MACS project is to explore and exploit the concept of affordances for the design and implementation of autonomous mobile robots acting goal-directedly in a dynamic environment. The claim is to develop affordance-based control as a method for robotics. That involves making affordances a first-class concept in the robot control architecture, which will be a decisive step forward in cognitive robotics. By interfacing perception and action in terms of affordances, we will provide a new way for reasoning and learning to connect with reactive robot control. We will show the potential of this new methodology by going beyond navigation-like tasks towards goal-directed autonomous manipulation in our project demonstrators. All over, MACS aims at embedding its technical results into cognitive science.

This main objective is refined in the main fields of targeted S&T contributions: Robot control architecture, perception, representation, and learning, as far as they are related to affordance-based robot control. A demonstrator, consisting of an autonomous mobile manipulation-capable robot with a rich sensor configuration is specified that will be implemented in the course of the project serving to integrate, demonstrate, and evaluate both in simulation and in physical performance these S&T contributions.

MEDAWARE

Development of Tools and Guidelines for the Promotion of the Sustainable Urban Wastewater Treatment and Reuse in the Agricultural Production in the Mediterranean Countries

Project Manager
F.CELAL GÖKÇAY

Project Type
MEDA

Total Budget
2.345.569,00 EUR

METU's Share
200.829,00 EUR

Department/Faculty
Department of Environmental Engineering

Partnership
Partner



- The Declaration of the Euro-Mediterranean Ministerial Conference on local water management of Turin stressed the importance of integrating water resources management into sustainable development policies. It also stated the need for a participatory approach that had to be encouraged involving civil society, including water users and organizations at local, regional and national level. Another main aspect of this declaration is the statement that water scarcity could be alleviated through mobilization of non-conventional water resources, such as reuse of wastewater. The main objectives of this project perfectly match with the strategies of these countries aiming at strengthening wastewater management and utilization of the treated effluent for irrigation purposes. UES has a more than 20-year experience in the field of environmental and waste management. It is very active in the areas of wastewater treatment, development of national strategies and action plans, environmental impact studies, analysis of effectiveness of policies and measures, clean technologies and best available techniques, industrial risk assessment and hazard analyses etc.

Project Manager
ŞÜKRÜ BEŞİKTEPE

Project Type
EU FP-IP

Total Budget
102.000,00 EUR

METU's Share
56.200,00 EUR

Department/Faculty
Graduate School of Marine Sciences

Partnership
Partner

Mersea aims to develop a European system for operational monitoring and forecasting on global and regional scales of the ocean physics, biogeochemistry and ecosystems. The prediction time scales of interest extend from days to months. This integrated system will be the Ocean component of the future GMES system. Objective to improve the safety and efficiency of maritime transport and naval operations.

At the core of the system is the collection, validation and assimilation of remote sensed and in situ data into ocean circulation models that allow for the self consistent merging of the data types, interpolation in time and space for uniform coverage, nowcasting (i.e. data synthesis in real-time), forecasting, and hind-casting, and delivery of information products.

The project will develop marine applications addressing the needs of both intermediate and end-users, whether institutional or from the private sector, with the objective to:

- * Improve the safety and efficiency of maritime transport and naval operations;
- * Enable the sustainable exploitation and management of ocean resources (offshore oil and gas industry, fisheries);
- * Mitigate the effects of environmental hazards and pollution crisis (oil spills, harmful algal blooms);
- * Contribute to ocean climate variability studies and seasonal climate prediction;
- * Improve national security and reduce risks,
- * Advance marine research with the aim to better understand the global climate, the ocean and its ecosystems.

METU-CENTER

Middle East Technical University
Central Research Laboratory in
nanotechnology, new materials,
new processes and biotechnology

Project Manager
RAŞIT TURAN

Project Type
EU FP-SSA

Total Budget
900.000,00 EUR

METU's Share
900.000,00 EUR

Department/Faculty
Department of Physics

Partnership
Director

METU-CENTER

www.metucenter.metu.edu.tr

- This SSA project will improve and strengthen the human and equipment resources of the Middle East Technical University Central Laboratory (METU-CL) in the area of nanotechnology and nanosciences, knowledge based multifunctional materials, new production processes and devices (NMP), and molecular biology and biotechnology for food quality and safety. This improvement will raise the research capacity of the center to the level of leading research centers in Europe. As METU has been acting as a center and initiator of several national projects with many other universities in Turkey, this project will have an impact on the research capacity of the whole country through the nation-wide networks which are already established.

MODNET Model Theory and Applications



MODNET

www.logique.jussieu.fr/modnet

Project Manager
AYŞE BERKMAN

Project Type
MARIE CURRIE Research Training Network

Total Budget
3.000.000,00 EUR

METU's Share
50.000,00 EUR

Department/Faculty
Department of Mathematics

Partnership
Partner

- This project is designed to promote training and research in model theory, a part of mathematical logic dealing with abstract structures (models), historically with connections to other areas of mathematics. In the past decade, model theory has reached a new maturity, leading to striking applications to diophantine geometry, analytic geometry and Lie theory, as well as strong interactions with group theory, representation theory of finite-dimensional algebras, and the study of the p -adics. These developments are recent, and necessitate the training of young researchers in both the sophisticated tools of pure model theory, and in the field where they are likely to be applied. The main objective of the project is to consolidate and stimulate these advances by providing the required interdisciplinary training.

NICE Network of ICT Clusters in Europe

Project Manager
UĞUR YÜKSEL

Project Type
Co-ordination Action

Total Budget
787.534,00 EUR

METUTECH's Share
92.515,00 EUR

Department/Faculty
METUTECH

Partnership
Partner

NICE

- The objective of NICE is to strengthen the European ICT sector by networking clusters, having in mind that information and communication technologies (ICT) are playing a key role in achieving the main objectives of the Lisbon strategy. NICE seeks to bridge the gap between regions with a highly innovative business environment due to ICT innovations and cluster building and those regions less advanced. Therefore, NICE aims at supporting networking, co-operation, transfer of knowledge and initiation of joint projects between advanced ICT clusters of the European Economic Area and associated countries.

QUARRYSCAPES

Conservation of Ancient Stone Quarry Landscapes in the Eastern Mediterranean

Project Manager
EMİNE CANER SALTİK

Project Type
INCO

Total Budget
1.000.000,00 EUR

METU's Share
112.000,00 EUR

Department/Faculty
Department of Architecture

Partnership
Partner

QUARRYSCAPES

The QuarryScapes project aims to enhance cultural heritage management of ancient quarry and scapes through the development of methodology and conservation models that can be effectively implemented in a range of cultural context. "QuarryScapes" will develop scientific and practical methodologies for documentation, characterization and conservation of ancient quarry landscapes, raise awareness of significance and vulnerability of such sites and contribute to legal protection measures and sustainable management of ancient quarry landscapes through case studies in Egypt, Jordan and Turkey.

The study aims at the characterization of the ancient quarries and quarry landscapes, their archaeological and geological properties and a general review of production-consumption patterns. The METU-WP2 will focus on the tracing of the quarry landscapes that had been used in Roman times or even earlier (Phrygian period, 6-5 century BC). In this study, the following selected sites will be investigated:

- Andesites of Ankara (quarries used since Roman times or earlier)
- Tuffs of Cappadocia (durable types were exploited by Selujks)
- Limestone quarries of the Hittites (Sapinuwa-Ortaköy, near Çorum)
- Aegean marbles around Manisa.

The study will start with the collection and evaluation of the present data on monuments and quarries (historical and architectural data on monuments, geological maps, GIS-based documentation, etc.). The characterization of the stones on the monuments as well as the quarries will be done through color analysis, mineralogical and petrographical analysis, analyses of physical and mechanical properties, assessment of durability characteristics, and weathering state. Furthermore, field studies including the determination of material and mass properties of the quarries, and the documentation of the stone characteristics of the monuments related with the quarries will be carried out to build up conservation proposals, strategies, and plans.

ResIST

Researching Inequality Through
Science and Technology

Project Manager
UĞUR YÜKSEL

Project Type
STREP

Total Budget
1.555.600,00 EUR

METUTECH's Share
89.400,00 EUR

Department/Faculty
METUTECH

Partnership
Partner



ResIST

- This Project's objective is to understand processes that contribute to the increase in inequalities through the role of Science & Technology, but also to understand processes that contribute to mitigate inequalities through S&T. The enhanced role of S&T in the global knowledge economy gives such understanding urgency. ResIST will analyze how global policy contexts for key S&T processes affect the distribution and redistribution of knowledge resources, and the scope for alternative framings; identify the features of effective policies and programmes to build S&T human capital and institutional capacity in disadvantaged populations and places. Critically assess new initiatives to construct S&T priorities reflecting the needs of the disadvantaged, and review current constraints and future opportunities for their full realization.

RIDE Roadmap for Interoperability of eHealth Systems in Support of COM 356 with Special Emphasis on Semantic Interoperability

Project Manager
ASUMAN DOĞAÇ

Project Type
EU FP CA

Total Budget
1.156.269,00 EUR

METU's Share
162.960,00 EUR

Department/Faculty
Department of Computer Engineering

Partnership
Coordinator

RIDE is a roadmap project for interoperability of eHealth systems leading to recommendations for actions and to preparatory actions at the European level. This roadmap will prepare ground for future actions as envisioned in the action plan of the eHealth Communication COM 356 by coordinating various efforts on eHealth interoperability in member states and the associated states. The RIDE project will address the interoperability of eHealth systems with special emphasis on semantic interoperability. In order to create RIDE Roadmap, first the European best practices in providing semantic interoperability for eHealth domain will be assessed and the quantified requirements to create a valid roadmap will be identified. Based on these requirements, the goals, and the economical, legal, financial and technological challenges of the industry for the 21st century for achieving interoperability in eHealth solutions will be elaborated. RIDE will also focus on the limitations of the policies and strategies currently used in deploying interoperable eHealth solutions. A research portal for sharing resources addressing semantic interoperability in eHealth domain will be created and maintained; the key actors and stakeholders will be coordinated around RIDE special interest groups to create a wide consensus at the European level. Through eight RIDE workshops a shared vision for building a Europe-wide semantically interoperable eHealth infrastructure will be created. While creating RIDE Roadmaps the use of Open Source solutions will be preferred.

Project Manager
UĞUR YÜKSEL

Project Type
Research Training Network

Total Budget
537.000,00 EUR

METUTECH's Share
157.969,00 EUR

Department/Faculty
METUTECH

Partnership
Coordinator

- RIS–Mersin (Regional Innovation Strategies for Mersin) will be the first 'Regional Innovation Strategy' prepared in Turkey along the lines of EU based policies and strategies. RIS Mersin Consortium is formed by METU–Technopolis (the coordinator), Mersin University, Mersin Chamber of Commerce and Industry (on behalf of Regional Development Agency of Mersin), Mersin Tarsus Organised Industrial Zone, and Business Innovation Centre of Epirus–Greece.

The main objective of the project is to improve living standards by promoting innovation and strengthening the economic base of the region.

Under the framework the primary focus will be given to:

- develop and promote regional innovation infrastructure;
- provide a common platform for cooperation among public and private sector, research organisations and universities, and financial institutions in the region;
- promote a culture open to innovation and creativity by assessing needs in the enterprise sector in terms of innovation, by using awards or similar public awareness raising techniques;
- create connection between the research centres and the companies, help to transform the established and available knowledge at enterprises and higher education research institutes into innovations;
- open up opportunities for trans–regional cooperation;
- increase the number of smaller innovative enterprises by creating or supporting seed and venture capital funds, technology parks and incubators;
- human development, determining the directions of human resource development.

While implementing the innovation strategy developed, the performance shall be measured with economic growth, research outcomes, and technological competitiveness and employment rates of the region.

Project Manager
TIMO LAJUNEN

Project Type
EU FP-Marie Curie Host Fellowships for Transfer of Knowledge

Total Budget
685.366,00 EUR

METU's Share
685.366,00 EUR

Department/Faculty
Department of Psychology

Partnership
Director

- Every year over 41,000 people die and 1.6 million get injured in European road traffic. There are, however, considerable regional differences in the number of traffic deaths. Despite this vast difference between the Southern and Northern Europe in traffic safety, the reasons behind different accident risk figures have remained mainly unexamined. This Transfer of Knowledge project is aimed at improving the knowledge and research skills of Eastern Mediterranean traffic researchers by training experienced researchers in Greece and Turkey and sending selected researchers to the leading road safety research institutes in EU. The actions will target following new or under-developed priority areas in traffic safety research in Eastern Mediterranean region: human factors, societal factors in traffic safety, driving abilities of elderly professional drivers, and social psychological models of traffic behaviour. New research and training in these theory-based research areas will produce practical applications for driver education and licensing, enforcement, driver selection and engineering solutions. This project is a multi-disciplinary project in which traffic safety experts from different fields will be working together. Similarly, every project will include an incoming expert and local researchers. Especially, collaboration between Greek and Turkish researchers will be supported. In the first phase, research projects will be conducted in Turkey. In the second phase, core group of researchers will be sent to a specialized training period to partner institutes. The emphasis of the training will be in new methods and technologies.

SAPHIRE

Intelligent Healthcare Monitoring based on Semantic Interoperability Platform

Project Manager
ASUMAN DOĞAÇ

Project Type
EU FP STREP

Total Budget
2.040.774,70 EUR

METU's Share
494.640,00 EUR

Department/Faculty
Department of Computer Engineering

Partnership
Coordinator



www.srdc.metu.edu.tr/webpage/projects/saphire/

- The SAPHIRE project aims to develop an intelligent healthcare monitoring and decision support system on a platform integrating the wireless medical sensor data with hospital information systems. In the SAPHIRE project, the patient monitoring will be achieved by using agent technology where the “agent behavior” will be supported by intelligent clinical decision support systems which will be based on computerized clinical practice guidelines, and will access the patient medical history stored in medical information systems through semantically enriched Web services to tackle the interoperability problem. In this way, not only the observations received from wireless medical sensors but also the patient medical history will be used in the reasoning process of the clinical decision support system. Furthermore, through a graphical tool to be developed, while modeling the clinical decision processes, it will be possible to exploit the available computer-interpretable guideline models. The intelligent healthcare monitoring system will be deployed through two pilot applications, one for homecare monitoring of cardiovascular patients in Germany; the other to monitor cardiovascular patients in a hospital in Romania. To subscribe to critical data delivery, clinicians will simply use a Web-based program indicating desired alerts, thresholds, delivery methods (sms/e-mail/Web/pager) or to build a patient coverage list. Once subscribed, clinicians will immediately receive clinical notifications and reminders. The SAPHIRE Project proposes comprehensive security and privacy mechanisms to complement the infrastructure proposed.

SATINE

Semantic-based Interoperability
Infrastructure for Integrating Web Service
Platforms to Peer-to-Peer Networks

Project Manager
ASUMAN DOĞAÇ

Project Type
EU FP-STREP

Total Budget
15.560.000,00 EUR

METU's Share
427.020,00 EUR

Department/Faculty
Department of Computer Engineering

Partnership
Coordinator

SATINE

www.srdc.metu.edu.tr/webpage/projects/satine/

The objective of the project is to develop a secure semantic-based interoperability framework for exploiting Web service platforms in conjunction with Peer-to-Peer networks. From the point of Web services, there seems to be great opportunities in interoperating with P2P networks. Although service registries facilitate service discovery, they are centralized and joining a service registry requires special administrative arrangements in contrast to Peer-to-Peer (P2P) networks. The barriers to starting and growing P2P systems are low. Therefore especially for SMEs it is advantageous to make their services available through a P2P network. Yet the full power of Web services can be exploited only when any service whether on a service registry or advertised through a peer becomes available to the community. There is a major problem to be solved to realize this vision: the semantic interoperability problem. Web services have a lot of properties like their counterparts in real life that have to be used in the search. In this project we realize a semantic based infrastructure which allows the Web services on well-established service registries like UDDI or ebXML to seamlessly interoperate with Web services on P2P Networks. The infrastructure is used to develop an innovative business pilot application in the tourism industry. The travel ontologies to be developed and the semantics of the Web services are based on standard specifications like the one produced by Open Travel Alliance.

SEADATANET

A Pan-European Infrastructure
for Ocean and Marine Data
Management

Project Manager
ŞÜKRÜ BEŞİKTEPE

Project Type
EU RESEARCH INFRASTRUCTURES

Total Budget
12.287.541,50 EUR

METU's Share
266.640,00 EUR

Department/Faculty
Graduate School of Marine Sciences

Partnership
Partner



www.seadatanet.org

- SEADATANET aims to develop an efficient distributed Pan-European Marine Data Management Infrastructure for managing these large and diverse data sets. The objective is to network the existing professional data centres of 36 countries bordering the European seas, active in data collection and provide integrated databases of standardized quality on-line. The on line access to in-situ and remote sensing data, meta-data and products will be provided through a unique portal interconnecting, in the first phase, 11 interoperable node platforms. The development and adoption of common communication standards and adapted technology will insure the platforms interoperability. This activity will be developed to gradually connect all the other data centres to the interoperable system. The quality, compatibility and coherence of the data issuing from so many sources, will be insured by adopting standardized methodologies for data checking and by dedicating an important part of the networking activities to training.

SEMI NANO

Physics and Technology of Elemental,
Alloy and Compound Semi Conductor
Nanocrystals: Materials and Devices

Project Manager
RAŞİT TURAN

Project Type
EU FP-STREP

Total Budget
2.500.000,00 EUR

METU's Share
549.000,00 EUR

Department/Faculty
Department of Physics

Partnership
Director

SEMINANO

SEMI NANO

www.physics.metu.edu.tr/smd/seminano/

- The primary objective of this project is to develop fundamental knowledge on the production techniques, characterization and methods of applications of semiconductor nanocrystals to light emitting devices and floating gate memories. Three main research directions can be identified in the project : First, physics and chemistry of a number of elemental, alloy and compound semiconductor nanocrystal formation and mechanisms of charge transport and light emission will be studied in a systematic way to acquire fundamental knowledge. Second, methods and technology of obtaining new materials with well characterized nanocrystals suitable for use in device work will be developed. Finally, devices such as Metal Oxide Semiconductor (MOS) for use in flash memories and light emitting devices (LEDs) will be designed, fabricated and tested as prototypes of devices incorporating the unique features of nanocrystals. Full cycle starting from material processing to the demonstration of devices will be covered. Different materials, production techniques, processing conditions and characterization techniques will be employed to reach comprehensive results for the science and technology of semiconductor nanocrystals. As its main objectives are strongly related to the size dependent phenomena in semiconductors and its outcomes will form the basis for the new production techniques in the modern microelectronic and photonic industry.

SEPRISE

Sustained, Efficient Production of
Required Information and Services within
Europe Is Our Only Justification

Project Manager
ŞÜKRÜ BEŞİKTEPE

Project Type
EU SSA

Total Budget
330.000,00 EUR

METU's Share
16.050,00 EUR

Department/Faculty
Graduate School of Marine Sciences

Partnership
Partner

SEPRISE

- The overall objective of the project is to discern and enable methods of increasing, improving and coordinating production of European scale Operational Ocean Forecasting Products and Services. This will be achieved by reviewing and then ensuring that, as far as possible, the findings and experience gained from the so-called Operational Forecasting Cluster of Projects funded under MAST III and FP-5, and other relevant sources, are pulled through into sustained, efficient operational oceanographic services.

Recommendations for the future structure and functionalities of an integrated initial European coastal ocean observing and forecasting system will be made and a design plan to implement this will be prepared. Care will be taken to ensure that proposals are compatible with the wider implementation of GMES, in particular to ensure interoperability with similar initiatives outside the marine theme.

SINCERE

SME – Intelligence Network for Co-operation in E-Health Road Mapping Events and Projects

Project Manager
UĞUR YÜKSEL

Project Type
SSA

Total Budget
896.708,00 EUR

METUTECH's Share
76.797,00 EUR

Department/Faculty
METUTECH

Partnership
Partner



SINCERE

- e-Health is one of the priority areas in the European Union and is of paramount importance from several aspects; better healthcare for citizens, easier access to care regardless of EU state, coordinated systems within the health sector etc. Action Plans have been put forward from the Commission as well as from national levels. The challenge will be to coordinate these action plans and strategies aimed at increasing research and strengthening competition and growth at EU level. The proposed consortium within SINCERE is planning to operate in Sweden, Germany, the United Kingdom, Italy, Latvia, Norway and Turkey. The countries have reached different levels of development in the e-Health area, which will contribute to achieving synergy effects.

SMEInnov8Gate

Identify and Support Research and Business Excellence to Enhance NMS-ACC Participation in the Development and Pilot Implementation- Demonstration of ICT Business Applications and Services

Project Manager
UĞUR YÜKSEL

Project Type
SSA

Total Budget
908.545,00 EUR

METUTECH's Share
183.865,00 EUR

Department/Faculty
METUTECH

Partnership
Partner



- The primary objective of the SMEInnov8Gate pilot action is to set up an experimental trans national action which will research, analyse, synthesis, validate, test, standardise and disseminate effective SME Stage Gate methodologies which will enable SMEs to profit from innovation (IP, IA) exploitation partnerships with large companies and RTDs. It is anticipated that the pilot action will increase the speed, success rate and impact of the SMEs TTT whilst reducing the cost of the process.

TECHNICAL TRAINING IN WELDING TECHNOLOGY WITH EU STANDARDS AND CERTIFICATION

Project Manager
ALPAY ANKARA

Project Type
ISKUR PROJECT

Total Budget
264.542,00 EUR

METU's Share
264.542,00 EUR

Department/Faculty
Department of Metallurgical and Materials Engineering

Partnership
Director

TECHNICAL TRAINING IN WELDING TECHNOLOGY WITH EU STANDARDS AND CERTIFICATION

<http://www.wtndt.metu.edu.tr/wt/kaynak.php>

- General aim of the project was, in the adaptation process to European Union to train the personnel in welding technology sector, so that their knowledge and skills are brought to the same level with the EU counterparts. This will ease EU co-operation with Turkey. This will increase the national and international competitiveness of the markets in question. Here the target group was chosen as the new graduates who have not been employed yet, unemployed technicians and the workers that could be easily employed by training them in metal welding sector. Further, this project was also another step in the adaptation processes towards European Union.

Exporting industrial goods or participating in international biddings depends on the quality assurance system of a firm. This assurance system, stipulates employing of internationally qualified personnel. The skills of the engineers, technicians and workers working in the field of welding technology can assure the reliability of the products. Welding technology applications consume great amount of energy and consumables and put a great burden on the environment. Therefore, great destruction to the environment due to the unqualified personnel was hopefully avoided with this training.

The need of Welding Engineer in Turkey is being expressed with several hundreds. People who have the European Welding diploma can immediately find jobs. In Turkey the need for certified technicians and welders is being expressed with thousands.

TEMPLE OF AUGUSTUS CONSERVATION PROJECT

Control of Stone Deterioration,
Structural Maintenance and Site
Presentation

Project Manager
EMİNE CANER SALTİK

Project Type
GRANT

Total Budget
100.000,00 EUR

METU's Share
100.000,00 EUR

Department/Faculty
Department of Architecture

Partnership
Director

TEMPLE OF AUGUSTUS CONSERVATION PROJECT

The objectives of the Temple of Augustus Conservation Project are to control rapid stone deterioration of the monument, to ensure its structural stability and to define and apply urgent conservation works and overall maintenance program.

The project is planned in two stages as: (1) primary research and projects, which are (a) the diagnostic testing of stone deterioration and development of repair and conservation treatments for decayed marble and tuff (b) the structural analyses of the monument, and (2) primary conservation actions which are (a) an introductory study for the characteristics of protective roof that should be constructed for the monument and (b) an introductory study on the main issues of the site presentation.

THE PROJECT ON THE REHABILITATION AND INCREASING THE LOCAL CAPACITY OF THE HISTORICAL "HANLAR" REGION OF SANLIURFA

Project Manager
NUMAN TUNA

Project Type
Grant Programme

Total Budget
668.170,00 EUR

METU's Share
40.000,00 EUR

Department/Faculty
TAÇDAM (Center for Research and Assessment of the Historical Environment)

Partnership
Director

THE PROJECT ON THE REHABILITATION AND INCREASING THE LOCAL CAPACITY OF THE HISTORICAL "HANLAR" REGION OF SANLIURFA

The project is aimed to contribute to "Cultural Heritage Development Programme of the GAP Region" by the rehabilitation of Şanlıurfa Historic City Center and the expansion of local capacity. The objectives of the Şanlıurfa Historic City Center Project consist of the physical rehabilitation and improvement of the area, to increase the local capacity with the aid of educational seminars and to achieve the preservation of the features of cultural heritage while providing sustainability for the functionality of the traditional commercial centre. The improvement of cultural tourism in the area is expected to generate new employment opportunities and to yield annexed values

ToR for the Baseline Study on the Environmental Conditions of the Karpaz Peninsula

Project Manager
C. CAN BİLGİN

Project Type
EU-Partnership for the Future Programme

Total Budget
3.870,00 EUR

METU's Share
3.870,00 EUR

Department/Faculty
Department of Biology

Partnership
Consultant

ToR for the Baseline Study on the Environmental Conditions of the Karpaz Peninsula

Under the funding of the European Union, the project Private Sector Development in northern Cyprus (PSD) is executed by UNDP with the ultimate goal to contribute to the development of the socio-economic standards of the Turkish-Cypriot community. In this respect, the Karpaz peninsula has been identified as an area having a huge potential for tourism development but at the same time as a highly vulnerable ecosystem that needs to be preserved and properly managed. Therefore, there is an urgent need to have a baseline study that would look at the environmental conditions of the Karpaz peninsula.

The Karpaz area is currently under various forms of natural and cultural heritage protection, including a national park. At least 11 plant endemic taxa, sea turtles and several threatened bird species are known to occur on the Karpaz peninsula.

This project aimed to formulate the Terms of Reference (ToR) for the preparation of a baseline study on the environmental conditions of the Karpaz peninsula. The proposed baseline study comprises of two components, an ecological survey of physical and biodiversity features, and a socio-economic assessment. Both components are linked to one another, and strongly supported with spatial analysis and presentations. The ToR represents the technical part of a tender document to engage the services of firms and/or other entities, including NGOs or international organizations, for the formulation and implementation of the study.

TURNEX

Turbomachinery Noise Radiation Through The Engine Exhaust

Project Manager
YUSUF ÖZYÖRÜK

Project Type
EU FP-STREP

Total Budget
4.696.000,00 EUR

METU's Share
217.000,00 EUR

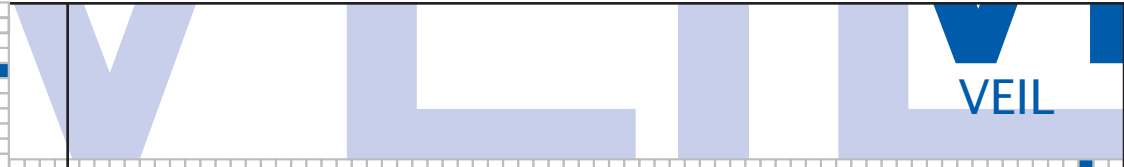
Department/Faculty
Department of Aerospace Engineering

Partnership
Partner

Increasing air traffic and community sensitivity against noise levels, particularly near airports, points European aircraft engine manufacturers to challenging lower noise levels. Within the next 10 years, noise radiation from aircraft is aimed to be reduced by about 5 decibels, which will only be possible with new enabling technologies. In this framework, several projects are supported by the European agencies. Noise propagating through and radiating from aircraft engine bypass and core exhaust ducts is still one of the dominating noise components of overall aircraft noise, especially at take-off. With this motivation, TURNEX, one of these projects, focuses on development of improved noise prediction tools for exhaust noise, as well as demonstration of new exhaust design concepts both experimentally and numerically.

VEIL

Values, Equality and Differences in Liberal Democracies. Debates About Female Muslim Headscarves in Europe



<http://veil-project.cjb.net/>

Project Manager
AYSE SAKTANBER

Project Type
EU FP-6

Total Budget
1.204.440,00 EUR

METU's Share
82.109,00 EUR

Department/Faculty
Department of Sociology

Partnership
Partner

- The VEIL project focuses on the debates, conflicts and regulations concerning head- and body coverings of Muslim women in the public sphere, particularly in public institutions such as schools, universities and the courts. VEIL compares policy and media debates in eight European countries and the European Union where the issue has been the subject of heated debate. The aims of the project are: to map out and compare the fundamental values and political principles of the main actors in the headscarf debates; and to explain the differences and similarities in the conflicting values as expressed in the policies on Muslim headscarves. It suggest a gender-critical frame analysis of policy documents, incorporating a comparative analysis which focuses on citizenship regimes and immigration policies, on gender regimes and the relationship between the state and the religious institutions and communities. It will also draft recommendations for national and European policy makers from dealing with religious and cultural diversity.

WETLAND AND PHYTOPLANKTON

Greek – Turkish Cooperation
For The Strengthening of
Protection and Management
of Wetland Areas (European
Directive 2000/60)

Project Manager
MERYEM BEKLIOĞLU

Project Type
EU RESEARCH

Total Budget
250.000,00 EUR

METU's Share
38.993,00 EUR

Department/Faculty
Department of Biology

Partnership
Partner

WETLAND AND PHYTOPLANKTON

- The strengthening of cooperation between scientists from Greece and Turkey for the protection and conservation of wetland resources according to the requirements of the European Water Framework Directive 2000/60. As this proposed project is designed, based to the requirements of the WFD, to apply a) methodologies for the monitoring and assessment of the ecological status of wetlands and b) institutional capacity building for the protection and management of water resources, the experiences gained will be utilized in the general environmental policy on the conservation and management of water resources