

Sabanci University

**RESEARCH AND
GRADUATE POLICY
DIRECTORATE**

**SUPPORTS YOUR
RESEARCH AT SU**

in February 2011, features

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more information at: rgp.sabanciuniv.edu

1. TUBITAK “Support Program for Research Projects of Public Institutions (1007)” Program

TUBITAK 1007 Support Program for Research Projects of Public Institutions was initiated by the decision of the Supreme Council of Science and Technology taken on 10th March 2005. The purpose of the program is to solve the problems and satisfy the needs of public institutions in Turkey by R&D projects in order to:

- Develop science and technology policies with respect to national priorities,
- Provide support to build infrastructure for execution of these policies,
- Support and execute R&D activities,
- Increase the country’s competitive power in technology and the wealth of the society.

As "Customer Institutions", public institutions can propose projects in which universities, private firms or public R&D institutions act as "Project Executors".

There will be a two-stage procedure for TUBITAK 1007 applications: pre-proposals and full proposals and accordingly a two-stage review procedure. Pre-proposals will not be sent by the panel for evaluation. The main criteria used in the pre-proposal stage will be the expected impact of the proposed research to solve public institutions problems. Successful applicants from the pre-proposal stage will be invited to submit their comprehensive, more detailed full proposals.

The call for pre-proposals is closed on January 7th, 2011 and the review process has been completed. The call for full-proposals for successful applicants will be accepted from February 17 to May 2, 2011.

Funding will be awarded for a maximum of four years. There is no upper limit for support.

For further information regarding the TUBITAK 1007 Program can be found at <http://www.tubitak.gov.tr/home.do?sid=370&pid=364>

1.1 1007 Success Story:

“MILRES: National Wind Energy Systems Project”, PI: Dr. Mahmut Akşit	MahmutAksit
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When I received an invitation from the Ministry of Energy for a special search conference on wind energy, we had just completed a project to design and develop a novel Crossflow Hydro-Turbine. It was about two and a half years ago when I attended the search conference in Ankara. In attendance, there were faculty members with turbine design and wind energy backgrounds from various universities as well as numerous industry participants in the fields related to major wind turbine components.

It all started about 4 years ago. As part of the efforts to utilize renewable energy resources the Ministry of Energy completed the long waited REPA Project maps. These maps provided wind energy potential of Turkey at various elevations. Once these maps were published, EPDK (The Electricity Market Regulatory Authority) started accepting license applications for power production from wind energy. The investor interest was tremendous. License applications were received for over 78 000 MW of wind power capacity. To let you scale how much power this means, the peak power load of entire Turkey did not exceed 40 000 MW last year. Of course, not all of the 78 000 MW application is expected to materialize. However, about half of wind power license applications is expected to get online in the long run (20 to 30 years). Ignoring some insignificant domestic mini wind turbines production, currently all industrial size wind turbines are imported. Considering the fact that wind turbines cost approximately 1.5 million USD for 1 MW capacity, some 60 billion USD is expected to flow abroad over the years. Once this picture was clear, the minister had asked his advisors to form a national team to develop our own domestic wind turbine technology. This was the reason for the search conference organization.

From the early days I was actively involved in team building and proposal phases. With major contributions in project preparation, I was first selected as the team leader for Mechanical Systems Group, and later as the project leader. The aim of the project is to develop an industrial scale (2.5 MW) large turbine prototype that is optimized for typically low Turkish wind speeds. A 2.5 MW turbine may reach 90 m tower height, 100 m wing span and about 100 tons of nacelle weight. Due to massive structures involved, wind turbine development projects require major funding. It is known that German government spent over 100 million DM in early 1980s to develop a 2 MW turbine prototype. The initial cost estimates for MILRES (National Wind Energy Systems Project) reached in tens of millions of USD. The consultations between the project team leaders and the Ministry of Energy resulted in a decision to seek project funding through TUBITAK (The Scientific Research Council of

Turkey). We have prepared almost a thousand page long application as a TUBITAK KAMAG 1007 project. It was long and tedious work. The team contained over 100 researchers from nearly 15 different institutions. The project proposal has been evaluated by 7 referees from different universities. Unfortunately, the first application has been rejected, as the panel of referees did not find one of the team leader institutions competent in R&D. We lost an entire year; however, with perseverance we re-arranged the team, revised our project proposal and applied again. This time the project team was formed under the following leadership: Sabanci University (project leader and responsible for Mechanical Systems Group), TAI Turkish Aircraft Industries (responsible for Blades), Istanbul Ulasim AS (responsible for Electronics & Controls), TUBITAK Marmara Research Center (responsible for Generator & Electrical Systems) and Istanbul Technical University (responsible for Wind Analysis and Structural Systems). After year-long evaluations and revisions, the project has finally passed all technical and budgetary evaluations. The project has two phases. The first phase involves development of 500 kW test turbines before building a 2.5 MW prototype. For the first phase, a 10 million TL budget has been approved. We are currently completing the final paper work for contract signing ceremony.

Overall, the entire project is a success story with a lot of long hard team work and perseverance. The project aims to save over 15 billion USD by estimated 25 % domestic turbine installations over the years. The other goals include establishing wind turbine manufacturing infrastructure in Turkey. The project is expected to start in March once the contract is signed.

2. Open Call for Proposals

EU 7TH FRAMEWORK - TUBITAK

Sponsored Institution	Call Title	Deadline for Submission	Theme
EU 7th Framework Program (FP7) Cooperation Specific Program			
EU FP7-Cooperation	Theme 4 - NMP -Coordinated call EU-Russia 2011	March 31, 2011	NMP
EU FP7-Cooperation	Energy Call Part 2	April 07, 2011	Energy
EU FP7-Cooperation	FP7- SUSTAINABLE SURFACE TRANSPORT (SST)-2011-MOVE-1	April 12, 2011	TPT
EU FP7-Cooperation	SME Initiative on Digital Content and Languages	April 28, 2011	ICT
EU FP7-Cooperation	Clean Sky JTI 2011-01	May 03, 2011	JTI
EU FP7-Cooperation	FET Open	May 17, 2011	ICT
EU FP7 Ideas Specific Program			
EU FP7-Ideas	ERC Advanced Investigators Grant	March 10, 2011	Life Sciences
EU FP7-Ideas	ERC Advanced Investigators Grant	April 06, 2011	Social Sciences & Humanities
EU FP7 People Specific Program			
EU FP7-People	Marie Curie Career Integration Grants (CIG)	March 08, 2011	Marie-Curie Actions
EU FP7-People	Marie Curie International Research Staff Exchange Scheme (IRSES)	March 17, 2011	Marie-Curie Actions
EU FP7-People	Trans-national operation of the "EURAXESS Services Network II": 2011-2013	March 30, 2011	Marie-Curie Actions
EU FP7 Capacities Specific Program			
EU FP7-Capacities	Reinforcing Cooperation with Europe's neighbours in the context of the ERA	March 15, 2011	Activities of International Cooperation
EU FP7-Capacities	Strengthening European research facilities in third countries - INCO-LAB	March 15, 2011	Activities of International Cooperation
			Activities of

EU FP7- Capacities	Strengthening joint European S&T centres in Third Countries - INCO-HOUSE	March 15, 2011	International Cooperation
TUBITAK			
TUBITAK	Support Program for Scientific and Technological Research Projects (1001)	March 04, 2011	-
TUBITAK	Career Development Program (3501)	March 04, 2011	-
TUBITAK	EVRENA- Global Researcher Program (1010)	March 04, 2011	-
TUBITAK	UBAP-The Participation Program for International Scientific Research Projects (1011)	March 11, 2011	-
TUBITAK	Visiting Scientists Fellowship Program (2221)	End of every month	-
TUBITAK	Short-Term R&D Funding Program (1002)	Open	-
TUBITAK	Support Program for the Initiative to Build Scientific and Technological Cooperation Networks and Platforms (1301)	Open	-
TUBITAK	European Cooperation in Science and Technology (COST) 2515	Open	-
TUBITAK	Patent Application Promotion and Support Program (1008)	Open	-

Abbreviations: **NMP:** Nanosciences, Nanotechnologies, Materials and new Production Technologies **TPT:** Transport (including Aeronautics) **ICT:** Information and Communication Technologies **JTI:** Joint Technology Initiatives

3. RGP News

Proposals submitted by RGP

The RGP Directorate has processed 9 proposals for the following sponsoring agencies in January and February 2011

- 1 proposal for TUBITAK-COST 2515
 - 1 proposal for EU FP7 People Marie Curie Initial Training Networks (ITN)
 - 1 proposal for EU FP7 Cooperation Information & Communication Technologies (ICT)
 - 1 proposal for EU FP7 Cooperation Nanosciences, nanotechnologies, Materials & new Production Technologies (NMP)
 - 1 proposal for EU FP7 Cooperation Socio-economic Sciences and the Humanities (SSH)
 - 1 proposal for EACEA Centres of Excellence
 - 1 proposal for EACEA Ad Personam Jean Monnet Chair
 - 1 proposal for EACEA European Module
-
- 1 proposal for Ecosystem Services for Poverty Alleviation (ESPA)

Attended Meetings and Events of the RGP Directorate in January and February 2011

- "i20 Annual Conference", January 11-16, 2011, Dr. Cemil Arıkan attended to the conference, Washington, USA.
- "Winning FP7 Bids Workshop", January 18, 2011, Mrs. Gonca Girit McDaniel attended to the workshop, Cambridge, UK.
- "Wind Energy Platform Meeting", January 21, 2011, Dr. Cemil Arıkan attended to the meeting, Istanbul.
- "ERC Advanced Grant Workshop", January 27, 2011, Dr. Didem Kılıçoğlu attended to the workshop, Amsterdam.
- "TUSIAD - UIG Pre-Competition Partnerships Seminar", February 07, 2011, Dr. Cemil Arıkan was a panel chair, TUSIAD, Istanbul.
- "Finance in FP7", February 09, 2011, Mrs. Yeşim Kaya attended to the workshop, Cambridge, UK.
- "National Nano Enterprise Meeting", February 19, 2011, Dr. Cemil Arıkan was a panel chair, Istanbul.

4. Latest Research News

Sabancı University Faculty has been awarded with seven new grants from TUBITAK Support Program for Scientific and Technological Research Projects (1001)

Dr. Albert Levi, Faculty Member at the Faculty of Engineering and Natural Sciences, has been awarded with TUBITAK Support Program for Scientific and Technological Research Projects for his project entitled "Design and Development of Security Infrastructure for Mobile Sensor Networks".

Dr. Canan Atılğan, Faculty Member at the Faculty of Engineering and Natural Sciences, has been awarded with TUBITAK Support Program for Scientific and Technological Research Projects for her project entitled "Structural Analysis and Classification of Protein Conformational Motions by Perturbation Response Scanning and Molecular Dynamics".

Dr. Erhan Budak, Faculty Member at the Faculty of Engineering and Natural Sciences, has been awarded with TUBITAK Support Program for Scientific and Technological Research Projects for his project entitled "Analysis, Modeling and Optimization of Simultaneous Machining Processes Performed on Multi-Tasking Machine Tools".

Dr. İnanç Adagideli, Faculty Member at the Faculty of Engineering and Natural Sciences, has been awarded with TUBITAK Support Program for Scientific and Technological Research Projects for his project entitled "Spintronics and Quantum Computing with Topological Insulators".

Dr. İnci Gümüş, Faculty Member at the Faculty of Arts and Social Sciences, has been awarded with TUBITAK Support Program for Scientific and Technological Research Projects for her project entitled "The Effects of Foreign Currency Borrowing and Real Exchange Rates on Macroeconomic Fluctuations in Developing Countries".

Dr. Javed Kolkar, Visiting Faculty Member at the Faculty of Engineering and Natural Sciences, has been awarded with TUBITAK Support Program for Scientific and Technological Research Projects for his project entitled "In-vitro Selection of ssDNA Aptamers and Their Use for the Development of Label-Free Aptamer Based Biosensors for Cancer Diagnosis".

Dr. Meriç Özcan, Faculty Member at the Faculty of Engineering and Natural Sciences, has been awarded with TUBITAK Support Program for Scientific and Technological Research Projects for his project entitled "Development of Digital Holographic Microscope".

Sabancı University Faculty has been awarded with two new grants from TUBITAK Career Development Program (3501)

Dr. Güvenç Şahin, Faculty Member at the Faculty of Engineering and Natural Sciences, has been awarded with TUBITAK Career Development Program for his project entitled "Tactical and Strategic Railway Crew Planning Problems".

Dr. Mehmet Yıldız, Faculty Member at the Faculty of Engineering and Natural Sciences, has been awarded with TUBITAK Career Development Program for his project entitled "A Smoothed Particle Hydrodynamics Model for the deformation and motion of a bubble in a Newtonian and Non-Newtonian viscous liquid under the combined effects of gravity and externally applied electric field".

Sabancı University Faculty has been awarded with a new grant from TUBITAK Bilateral Cooperation-Slovenian Research Agency Program (2508)

Dr. Cleva Owyang-Gülgün, Faculty Member at the Faculty of Engineering and Natural Sciences, has been awarded with TUBITAK Bilateral Cooperation-Slovenian Research Agency for her project entitled "Electron Energy-Loss Spectroscopy of Boron Incorporation in Strontium Aluminate".

Sabancı University Faculty has been awarded with a new grant from TUBITAK Short-Term R&D Funding Program (1002)

Dr. Nihat Kasap, Faculty Member at the School of Management, has been awarded with the TUBITAK Short-Term R&D Funding Program for his project entitled "Provider Selection and Task Allocation Problems under Fuzzy Quality of Service Constraints and Volume Discount Pricing Policy for Telecommunication Network".

Sabancı University Faculty has been awarded with a new grant from EC FP7 People Marie Curie Program

Dr. Ayşe Turak, Faculty Member at the Faculty of Engineering and Natural Sciences, has been awarded with EU FP7 Marie Curie European Reintegration Grants (ERG) for her project entitled "High Efficiency Nanostructured Electrodes for Organic Solar Cells Using Solution Processed LiF".

5. Upcoming Events

- "Europe's Premier Wind Energy Event (EWEA) 2011", March 14-17, 2010, Brussels, Belgium.
- "European Education Research Quality Indicators", March 15-16, 2011, Brussels, Belgium
- "10th European Forum on Eco-Innovation: Towards a Resource Efficient Economy: from Policy to Actions", March 22-23, 2011, Birmingham, UK.

- “International Working Conference on Enterprise Interoperability”, March 23-24, 2011, Stockholm, Sweden
- “2nd International Workshop on Business Intelligence and the Web”, March 25, 2011, Uppsala, Sweden.
- “27th European Workshop on Computational Geometry”, March 28-30, 2011, Morschach, Switzerland.
- “Innovact”, March 16, 2011, Reims, France
- “World Materials Perspectives”, March 30-31, 2011, Nancy, France.
- “Innovation in Healthcare: From Research to Market”, March 30-31, 2011, Brussels, Belgium.
- “Fit for Health - International Training for FP7 Newcomers”, April 06, 2011, Budapest, Hungary.
- “Eighth Workshop on Positioning, Navigation and Communication”, April 07-08, 2011, Dresden, Germany.
- “Molecular bioenergetics of cyanobacteria: from cell to community”, April 10-15, 2011, Sant Feliu de Guixols, Spain
- “Nanoscience and Micro-Nanotechnology Brokerage Event 2011”, April 11-14, 2011, Bilbao, Spain.
- “EU Sustainable Energy Week 2011”, April 11-15, 2011, Brussels, Belgium.
- “11th Symposium on Advanced Space Technologies in Robotics and Automation”, April 12-15, 2011, Noordwijk, The Netherlands.
- “Energy Efficiency & RES (Renewable Energy Sources) Congress for SE Europe”, April 13-15, 2011, Sofia.
- “EIT’s Strategic Innovation Agenda Stakeholder Conference”, April 14, 2011, Budapest, Hungary.
- “European Algae Biomass”, April 27-28, 2011, London, UK.
- “Transition Towards Sustainable Food Consumption and Production in a Resource Constrained World”, May 04, 2011, Budapest, Hungary.
- “eHealth Week 2011”, May 10-12, 2011, Budapest, Hungary.
- “10th World Wind Energy Conference & Renewable Energy Exhibition”, May 11-14, 2011, Cairo, Egypt.
- “11th ICEF - Food Process Engineering in a Changing World”, May 22-26, 2011, Athens, Greece.
- “EREC 2011 - European Renewable Energy Policy Conference”, May 23-24, 2011, Brussels, Belgium.
- “Code Generation 2011”, May 25, 2011, Cambridge, UK.
- “EuroNanoForum 2011”, May 30- June 01, 2011, Budapest, Hungary.
- “International Conference on Sustainability in Energy and Buildings”, June 01-03, 2011, Marseille, France.
- “Water Governance Meeting The Challenges of Global Change”, June 05-10, 2011, Oberurgl, Austria.
- “Workshop on social and privacy aspects of mobility”, June 06, 2011, Lulea, Sweden.
- “19th European Biomass Conference and Exhibition”, June 06-10, 2011, Berlin, Germany.
- “Week of Innovative Regions in Europe (WIRE) 2011”, June 07-09, 2011, Debrecen, Hungary.
- “FP7 Health - Open Information Day & Brokerage Event”, June 09-10, 2011, Brussels, Belgium.
- “Sixth International Conference on Future Internet Technologies”, June 13, 2011, Seoul, Korea.
- “17th International Conference on Digital Signal Processing”, June 13, 2011, Corfu, Greece.
- “Web science 2011”, June 14-17, 2011, Koblenz, Germany.
- “NutrEvent-2011”, June 15-16, 2011, Lille, France.
- “Learning and Sustainability Changing Ecosystems of Innovation and Knowledge”, June 19-22, 2011, Dublin, Ireland.
- “FOOD-OMICS: A science for nutrition, health and wellness in the post-genomic era”, June 22-24, 2011, Cesena, Italy.
- “Offshore Wind Energy Conference 2011”, June 29-30, 2011, Liverpool, UK.
- “ICICTE- International Conference on Information Communication Technologies in Education”, July 07-09, 2011, Rhodes, Greece.
- “Third Workshop on Social Mobile Web”, July 17-21, 2011, Barcelona, Spain.
- “Conference on advances in social networks analysis and mining”, July 25, 2011, Kaohsiung, Taiwan.
- “Fourth Conference on Artificial General Intelligence”, August 03-06, 2011, California, USA.
- “Ecocity World Summit 2011”, August 22-26, 2011, Montreal, Canada.
- “International conference on foresight and futures: Theory Building in Foresight and Futures Studies”, August 24-26, 2011, Istanbul, Turkey.
- “ISES Solar World Congress 2011”, August 28- September 02, 2011, Kassel, Germany.
- “Third International Conference on eParticipation”, August 29, 2011, Delft, The Netherlands.
- “14th Biennial EARLI Conference for Research on Learning and Instruction”, August 30- September 03, 2011, Exeter, UK.
- “Artificial Economics”, September 01, 2011, The Hague, The Netherlands.
- “12th International Conference on Environmental Science and Technology”, September 08-10, 2011, Rhodes island, Greece.
- “Symposium on Search-Based Software Engineering”, September 10, 2011, Szeged, Hungary.
- “Ninth European Conference on Web Services”, September 14-16, 2011, Lugano, Switzerland.
- “Shaping the Future of Natural Resources - Towards a Green Economy”, September 19-21, 2011, Davos, Switzerland.
- “Conference on The Theory and Practice of Digital Libraries”, September 26, 2011, Berlin, Germany
- “Elmia Future Transport 2011”, October 04-06, 2011, Jönköping, Sweden.
- “Fourteenth International Conference on Discovery Science”, October 05-07, 2011, Espoo, Finland.
- “5th European Solar Thermal Energy Conference (ESTEC 2011)”, October 20-21, 2011, Marseille, France.
- “RenewableUK 2011”, October 25-27, 2011, Manchester, UK.

- “5th International Symposium on Recent Advances in Food Analysis”, November 01-04, 2011, Prague, Czech Republic.
- “Sixth International Symposium on Non-CO2 Greenhouse Gases (NCGG-6) Science, Policy and Integration”, November 02-04, 2011, Amsterdam, The Netherlands.
- “Europort 2011”, November 08-11, 2011, Rotterdam, The Netherlands.
- “Agritechnica 2011”, November 15-19, 2011, Hannover, Germany.
- “OFFSHORE 2011”, November 29- December 01, 2011, Amsterdam, The Netherlands.
- “Planet Under Pressure: new knowledge towards solutions”, March 26-29, 2012, London, UK.

6. Call Forecast

Call Theme	Call Opens	Call Deadline
People- Intra-European Fellowships IEF	March 16, 2011	August 11, 2011
People- International Incoming Fellowships IIF	March 16, 2011	August 11, 2011
People- International Outgoing Fellowship IOF	March 16, 2011	August 11, 2011

7. Editorial

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