ÖZYEĞİN UNIVERSITY
15th Year

TECHNOLOGY TRANSFER OFFICE

RESEARCH FOCUS

2024

Preface

As **ÖzÜ TTO**, we provide support to researchers and facilitate the successful application of grant projects. The **Research Focus Catalogue** ensures that our research aligns with the direction outlined by the European Commission, guiding research and innovation towards their objectives. This catalogue grounds your work in purpose, providing a compass to navigate your path and ensuring alignment with Europe's priorities.

Here are the Grants Team's key responsibilities:

1. **Informing Researchers:** Guiding researchers by directing them to **open calls** for both national and international grant programs that align with their expertise.
2. **Roadmap Preparation:** Assisting researchers in **preparing roadmaps** for their proposal submissions to grant programs, ensuring clarity and alignment with program requirements.
3. **Project Proposal Support:** Providing comprehensive support for the **preparation and submission** of project proposals to both national and international grant programs.
4. **Pre-Evaluation and Budget Oversight:** Before submission, they **pre-evaluate project proposals** and budget tables.
5. **Information Flow:** The team acts as a bridge, **facilitating the flow of up-to-date information** between researchers and funding agencies.
6. **Partner Search Assistance:** Assisting **partner search activities** and fostering collaboration.
7. **Administrative Preparation:** Gathering and preparing **administrative information** required for project applications, ensuring compliance with guidelines.
8. **Grant Agreement Preparation:** Handling **grant agreement signature processes**, obtaining necessary signatures and approvals for successful project implementation.

Structure of Horizon Europe:
Horizon Europe is mainly categorized into three main pillars and unlike previous framework programs (e.g. HORIZON2020), takes an impact-driven approach to research and innovation. It aims to achieve specific impacts through thematic work programs, which are further broken down into expected outcomes. These outcomes will be addressed through actions within the clusters. The clusters act as vehicles to achieve the desired impacts, emphasizing collaboration, knowledge sharing, and benchmarking of project outcomes.

- **Pillar I - Excellent Science:** Focuses on fundamental research.
- **Pillar II - Global Challenges and European Industrial Competitiveness:** Provides EU funding to address global challenges and enhance Europe's industrial competitiveness.
- **Pillar III - Innovative Europe:** Dedicated to improving Europe's innovation ecosystem and commercializing innovation.

The clusters fall under Pillar II and are aligned with specific overarching six themes. The **six clusters** outlined in Horizon Europe represent not mere divisions but interconnected realms of knowledge. Each cluster converges toward a specific purpose, addressing critical global issues while bolstering European industrial competitiveness. Therefore, the Research Focus Catalogue focuses on these 6 clusters under Pillar II.

As academics, researchers, and research managers, we take advantage of exciting opportunities. In the ever-changing world of research and new ideas, we hope **The Research Focus Catalogue** will be helpful in identifying gaps, synergies, and potential collaborators.

Nevra Bulut, PhD
Grant Projects Team Leader

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Potential Collaboration Clusters/Areas For Horizon Europe Program

CL1: Health

Key Words

Bioinformatics[1], Biomedical[2], Computational Cancer Biology[3], Health Behaviour[4], Health Economy[5], Healthcare Logistics[6], Medical and Biomedical Physics[7], Medical Imaging[8], Mental Health[9], Psychology[10], Public Health[11], Reproductive Health[12], Visual Perception Eye Movements[13]

Researchers:

- Prof. Ali Ekici[1,5,6]
- Prof. Mehmet Burçin Ünlü[2,3,4,7,8]
- Assoc. Prof. Gökce Tarcan Kumkale[9,10,11]
- Assoc. Prof. İlknur Eruçar Fındıkçı[2,7]
- Asst. Prof. Alper Açık[10,13]
- Asst. Prof. Burcu Mutlu[12]
- Asst. Prof. Celia Naivar Şen[10]
- Asst. Prof. Elvin Çoban[6]
- Asst. Prof. Emre Sefer[1]
- Asst. Prof. Enis Kayış[6]
- Asst. Prof. İlknur Karadeniz[2]
- Asst. Prof. Ramazan Ünal[2]

CL2: Culture & Creativity

Key Words

Anthropology[1], Architecture[2], Architectural Design[3], Architectural History[4], Art Contemporary[5], Art History[6], Building Sciences[7], City History[8], Collective Memory[9], Communication Technology[10], Conflict International[11], Cultural Heritage of Protection[12], Cultural Landscape[13], Documentary[14], Economy[15], Equality[16], Ethics[17], Hotel Marketing[18], Islamic Art[19], Medieval Art[20], Middle East History[21], Ottoman History[22], Performance Studies[23], Restoration[24], Rural Architecture[25], Sustainable Tourism[26]

Researchers:

- Prof. Dr. Alper Ünlü[2]
- Assoc. Prof. Aslı Ağırbaş[2]
- Assoc. Prof. Ayşe Hazar Köksal[6]
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- Asst. Prof. Ayşe Ceren Bilge[12,13,25]
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- Asst. Prof. Doğa Dinemis Aman[2]
- Asst. Prof. Feray Coşkun[9,22]
- Asst. Prof. Gözde Çörekçioğlu İshakoğlu[15]
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- Asst. Prof. Işılay Tekçe[2,7]
- Asst. Prof. Luca Orlandi[4,3,12,25]
- Asst. Prof. Melis Taner[19,20]
- Asst. Prof. Oya İklil Selçuk[8,21,22]
- Asst. Prof. Susan Beth Rottmann[1,17]
- Asst. Prof. Tuğba Gülfem Kaya[2,3]
- Asst. Prof. Zeynep Merve Uygun Azizoğlu[14]

CL2: Education Technology & Learning Design

Key Words

3D Scanning[1], AR/VR[2], Arhitectural Education[3], Child Computer Interaction[4], Children Learning[5], Education Studies[6], Flight Training[7], Game Design[8], Interdisciplinary Learning[9], Learning Space Design[10], User Experience[11], User Research[12]

Researchers:

- Prof. Tufan Adıgüzel[2,6]
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- Assoc. Prof. Semih Soran[7]
- Asst. Prof. Derya Yorgancıoğlu[3,6]
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- Instr. Ebru Kılıç Bebek[6,12]

*Click on the researchers' names for more details.

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Potential Collaboration Clusters/Areas For Horizon Europe Program

CL2: Gender

Key Words

Children's Rights[1], Cognitive Psychology[2], Feminism[3], Feminist Science & Technology Studies[4], Gender Equality[5], Gender Studies[6], Labour Market[7], Leadership[8], Literature[9], Masculinities[10], Rights of Disadvantaged Groups[11], Sociology[12], Unpaid Work and Care[13], Violence Against Women[14], Women Entrepreneurship[15], Women's Rights/History[16], Workplace Climate[17]

Researchers:

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- Assoc. Prof. Çimen Günay Erkol [8,9,10]
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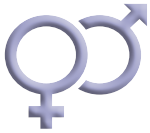
- Asst. Prof. Alper Açık[2]
- Asst. Prof. Burcu Mutlu[4]
- Asst. Prof. Gözde Çörekçioğlu İshakoğlu[3,7,15,16,17]
- Asst. Prof. Zeynep Merve Uygun Azizoğlu[4,16]
- Asst. Prof. Zeynep Reva[1,11,14]
- Instr. Senem Timuroğlu[3,9]
- Instr. Egem Atik[9,10]
- Instr. Özlem Dilber[16]
- Gender Office



CL2: Migration & Social Policies

Key Words

Conflict[1], Comparative Politics[2], European Studies[3], Forced-Irregular-Skilled Migration[4], Globalisation[5], Human Rights[6], Identities[7], International Politics[8], Labour/Social Movement[9], Migration Studies[10], Political Economy[11], Political Studies[12], Social Policy[13], Sociology[14], Transnationalism[15], Urban Politics[16]

Researchers:

- Prof. Deniz Sert[3,10,12]
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- Assoc. Prof. Ebru Ertugal Özveren[2,8,11]
- Assoc. Prof. Ebru Tekin Bilbil[3,14,16]
- Assoc. Prof. Faik Gür[12]
- Assoc. Prof. Hamid Akın Ünver[1,12]
- Asst. Prof. Alpkan Birelma[9,13,14]
- Asst. Prof. Ezgi Elçi[4,10,12,13]
- Asst. Prof. Susan Beth Rottmann[5,6,7,10,15]
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- Instr. Samarjit Ghosh[12]

CL3: Civil Security

Key Words

Civil War[1], Cyber Security[2], Internet of Things[3], Network Optimization[4], Network Security[5], Secure Communication[6], Security Policies[7], Security Technologies[8], UAV Systems[9]

Researchers:

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- Prof. Reha Civanlar[5]
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- Assoc. Prof. Hamid Akın Ünver[2,8]
- Asst. Prof. Başak Ozan Özparlak[2]
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**Click on the researchers' names for more details.*

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Potential Collaboration Clusters/Areas For Horizon Europe Program

CL3: Disaster

Key Words

Climate Change[1], Disaster & Emergency Management[2], Disaster Resilience[3], Earthquake Engineering[4], Healthcare Systems[5], Humanitarian Relief Chains[6], Optimization[7], Seismic Performances[8]

Researchers:

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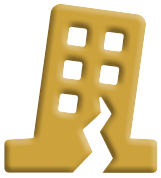
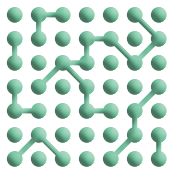


CL4: Big Data & AI

Key Words

AI[1], AI Law[2], Bioinformatics[3], Computer - Architecture[3], Data Engineering[4], Data Governance[5], Data Mining[6], Deep Learning[7], Human-Machine Interaction[8], Image - Video Processing[9], Information Technology[10], IT Law[11], Machine Learning[12], Multimedia Networks[13], Natural Language Processing[14], Signal/Speech Processing[15], Trustworthiness[16]



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- Prof. Hasan Sözer[3]
- Prof. Olcay Taner Yıldız[3,12,14]
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- Assoc. Prof. Cenk Demiroğlu[1,15]
- Assoc. Prof. Emre Sefer[3,4,12]
- Asst. Prof. Başak Ozan Özparlak [10,11,16]
- Asst. Prof. Erinç Albey[5]
- Asst. Prof. Enis Kayış[6]
- Asst. Prof. Furkan Kıraç[1, 12]
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CL4: Industry 4.0

Key Words

Capacity Planning[1], Increasing Productivity in Production Processes[2], Industry Applications of Scheduling/Packing[3], Optimisation[4], Sustainability of Industry 4.0 Transformation[5]

Researchers:

- Prof. Ali Ekici[3]
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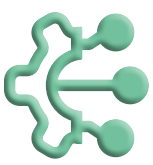

**Click on the researchers' names for more details.*

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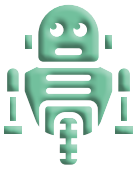
Potential Collaboration Clusters/Areas For Horizon Europe Program

CL4: Mechanical Tech. & Robotics

Key Words

Biomechanics[1], Cognitive Robotics[2], Fluid Dynamics[3], Gas and Steam Turbine[4], Humanoid and Quadruped Locomotion Control[5], Machine Learning[6], Mechatronics[7], Medical Robotics[8], Motion Detection[9], Turbulent and Transitional Flows[10], Vibration Acoustics[11]



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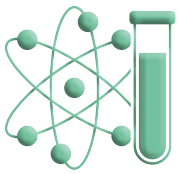
CL4: Optics & Photonics & Quantum

Key Words

Communication and Information Theory[1], High Energy Particle Physics[2], Nuclear and Particle Physics[3], Optics[4], Photonics and Microwave[5], Quantum Key Distribution[6], Remote Sensing[7], Single Atom - Single Photon Interactions[8], Visible Light[9], Wireless Communication[10]



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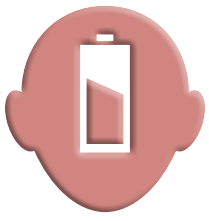
- Prof. Taylan Akdoğan[2,3]
- Asst. Prof. Ahmed Akgiray[5,7]
- Asst. Prof. Çağatay Edemen[1,9]
- Asst. Prof. Kadir Durak[6,8]

CL5: Energy

Key Words

Architectural Design[1], Building Analysis[2], E-Mobility Infrastructure[3], Energy Efficient Buildings[4], Energy Negotiations and Dispute Resolution[5], Human Space Interaction[6], Smart Cities[7], Sustainable Energy Systems[8], Urban Physics[9]



Researchers:

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- Asst. Prof. Neşe Ganiç Sağlam[1,4]
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- Dr. Cem Keskin[4,6,7]
- Center for Energy, Environment and Economy (CEEE)

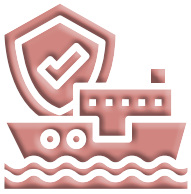
**Click on the researchers' names for more details.*

Potential Collaboration Clusters/Areas For Horizon Europe Program

CL5: Logistic & Transportation

Key Words

Airport and Airline Strategic Management[1], Aviation Safety[2], Business Models[3], Distribution System Planning[3], Intelligent - Transportation Systems[4], Logistic System[5], Marine Traffic[6], Organizational Theory[7], Passenger Experience[8], Production Planning[9], Supply Chain Management[10], Sustainable Aviation[11], Traffic Modeling[12]



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- Asst. Prof. Luis Martin Domingo[1,5,8,11]
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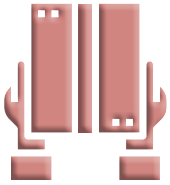

CL6: Food

Key Words

Agrarian Transformation[1], Agricultural Policies[2], Ethnic Food Cuisine[3], Food and Sustainability[4], Food Entreprenurship[5], Food Networks[6], Food Technology[7], Gastronomy Tourism[8], Product Development[9], Urban & Rural Development[10]

Researchers:

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- Asst. Prof. Aslı Zuluğ[5,9]
- Asst. Prof. Candan Türkkan[2,4,6,10]
- Asst. Prof. Suzan Tireki[7,9]
- Instr. Defne Ertan Tüysüzoğlu[8]
- Sustainability Platform

CL6: Materials

Key Words

Advanced Manufacturing[1], Building Materials[2], Concrete Rheology[3], Marine Pollution[4], Metal Organic Frameworks[5], Microplastics[6], Nano Materials[7], Self-healing Cement Based Materials[8], Smart Materials[9], Soil Mechanics[10], Steel Structures[11], Timber Technologies[12]

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- Prof. Gülay Altay[11]
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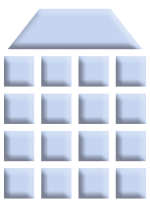
- Asst. Prof. Tuğba Gülfem Kaya[2,12]
- OPENFAB



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Potential Collaboration Clusters/Areas For Horizon Europe Program

You can click on the image to review our researchers catalog and patent portfolio.

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