

# ONTENTS

ABOUT ÖzÜ TTO	4
PREFACE	5
HIGHLIGHTS of 2022	6
SECTION I- GRANTS AND CONTRACTS	8
1.1 The Share of Grants and Contracts	9
1.2 Total Research Funds by Sponsors	10
1.3 13-Year History by Sponsors	10
1.4 Total Research Funds by Faculty and Schools	11
1.5 14-Year History by Faculty and Schools	11
SECTION II- SUCCESS STORIES FROM 2022	12
SECTION III INTELLECTUAL PROPERTY RIGHTS AND COMMERCIALIZATION	15
3.1 ÖzÜ Technologies	17
SECTION IV - LIST OF PATENT APPLICATIONS IN 2022	18
SECTION V - ENTREPRENEURSHIP ACTIVITIES	22
SECTION VI - EVENTS ORGANISED AND PARTICIPATED BY ÖzÜ TTO IN 2022	28
ÖzÜ TTO TEAM	32

# ABLES

Table 1.	Research Funding by Sponsors (2009 - 2022) (TL)	10
Table 2.	Research Funding by Faculty and Schools (2009 - 2022) (TL)	11
Table 3.	Projects Eligible to Receive Grant Support in 2022	13
Table 4.	National Patent Applications of ÖzÜ in 2022	19
Table 5.	International Patent Applications of ÖzÜ in 2022	20
Table 6.	Registered National Patent Applications of ÖzÜ in 2022	21
Table 7.	Registered International Patent Applications of ÖzÜ in 2022	21
Table 8.	Events and Trainings Organized and Participated by ÖzÜ TTO in 2022	29

# IGURES

Figure	1.	Cumulative Research Funds (TL) (2009 - 2022)	9
Figure	2.	Grants and Industry Partnerships Distribution (TL) (2009-2022)	9
Figure	3.	Total Research Funds by Sponsors (2009 - 2022)	10
Figure	4.	Total Research Funds by Sponsors in 2022	10
Figure	5.	Total Research Funds by Faculty (2009 - 2022)	11
Figure	6.	Total Research Funds by Faculty in 2022	11
Figure	8.	Patent & Utility Model Portfolio Statistics of ÖzÜ (2013-2022)	16
Figure	9.	IPR Performance in 2022	16

## **ABOUT**

### ÖzÜ TTO

The main objective of Özyeğin University is to be one of Turkey's leading entrepreneurial research universities. We give a great importance to academic research outputs, university-industry cooperation, intellectual property rights, commercialization of technology, establishing technology-based and startups are the main functions of the university. In order to serve this purpose, Özyeğin University Technology Transfer Office (ÖzÜ TTO) was established in November 2012. ÖzÜ TTO became one of the top 10 universities to receive support from TÜBİTAK 1513 Technology Transfer Offices Support Program in 2013.

#### Vision

Our vision; It aims to transform academic knowledge into social benefit by transforming every researcher into a project designer and every project developer into an entrepreneur.

#### Mission OzU TTO:

- raises awareness on TTO activities, innovation and technology transfer through the training-events and publications it organizes.
- provides project preparation, application and monitoring services for national / international support programs.
- conducts joint activities with the private sector to increase university-industry cooperation.
- manages the intellectual and industrial property rights portfolio and carries out commercialization activities.
- supports incorporation and entrepreneurship activities and runs accelerator programs.

Collaboration Grant Project
Project Development Training
Academic Industry Design
Innovation Research Technology R&D
Consultancy Investor Patent
Entrepreneurship Incorporation
International BIGG Incubation
Intellectual Property Mentoring
Commercialization





Dr. İsmail Arı Director of Knowledge, Technology Transfer and Entrepreneurship

OzU is a young, entrepreneurial, high-impact university with a bright future. 2022 marked some of the important project milestones including close to the 773rd contracted project and the 224 Millionth (TL) granted budget. We again ranked among the leaders of the IP ecosystem in terms of the number of patents applied for and granted in Turkey. The technology business that we catalyze reaches a large community of multi-national corporations, SMEs, startups, academicians, students, government office and national research centers. It takes literally hundreds of sessions each year to trigger new projects, start interactions, join and create consortiums to transfer the know-how back & forth among well-established players. While we act as a conduit for this high-energy flow, it also takes a lot of work & stamina, patience & perseverance, and extra budgeting from our side to close the remaining gaps. Therefore, I'd like to dedicate the achievements of 2022 to the technical team of Knowledge, Technology Transfer and Entrepreneurship (KTTE) Directorate, Project Management Office (PYO) and the Rectorate of Özyegin University.

"Life's roughest storms prove the strength of our anchors." - Anonymous

### HIGHLIGHTS OF 2022

CUMULATIVE RESEARCH VOLUME (TL)

223.9 Million TL



TOTAL RESEARCH PROJECTS



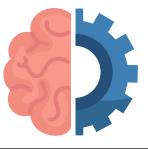
2022 RESEARCH VOLUME (TL)

74.3 Million TL



PROJECTS WITH INDUSTRY COLLABORATION

50



**GRANT PROJECTS STARTED IN 2022** 

53



COOPERATION MEETINGS HELD

300+



### TOTAL JOINT PATENT APPLICATIONS

173



### PATENTS AND UTILITY MODELS GRANTED

20



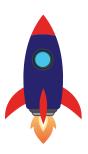
### INTERNATIONAL ENTREPRENEURS

113



### STARTUPS ESTABLISHED

10



### INFO DAYS AND TRAININGS ORGANIZED

116



### **PROJECT ANNOUNCEMENTS**

110 +



### **SECTION I**

### **GRANTS AND CONTRACTS**

This section focuses on sponsored research portfolio overview for the years 2009- 2022 and zooms into fiscal year 2022.



#### 1. Grants and Contracts

In 2022, Özyeğin University's sponsored research volume reached 223,9 million TL with 95 new projects. Thus, ÖzÜ's research performance has seen a 2.5-fold increase both in the total research budget and in the total number of research projects in the last 3 years. Since 2009, ÖzÜ has carried out 773 research projects, which were sponsored by the external funds and industry. Figure 1 details the cumulative research funds of ÖzÜ between 2009 and 2022.

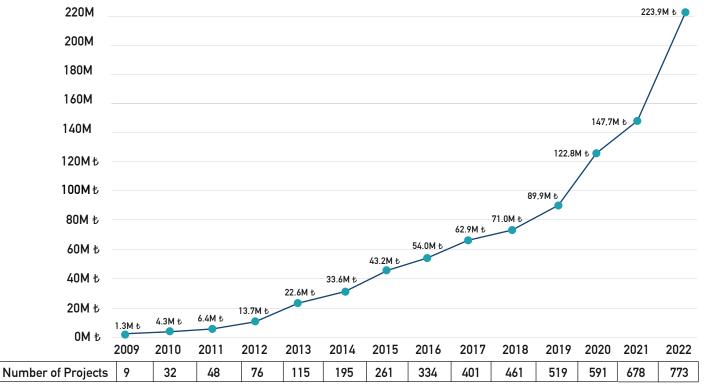


Figure 1. Cumulative Research Funds (TL) (2009 - 2022)

### 1.1 The Share of Grants and Contracts

Grants constitute the big portion of ÖzÜ's sponsored research volume. Approximately half of the grant volume (47%) involves industry collaboration, and the rest has been performed directly by our researchers within university. The contracts (university industry partnership projects) have also an substantial share in the ÖzÜ's cumulative research volume. The distribution of grants and contracts among years is shown in Figure 2.

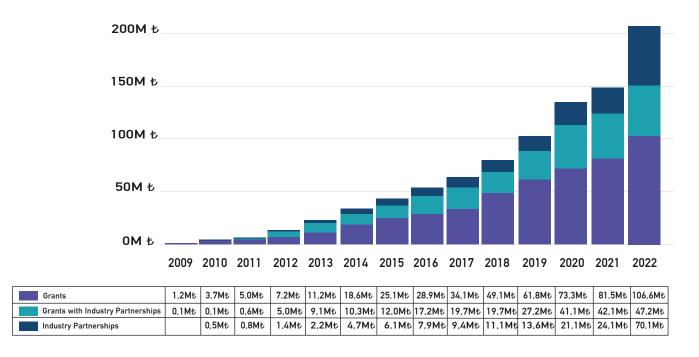


Figure 2. Grants and Industry Partnerships Distribution (TL) (2009 - 2022)

### 1.2 Total Research Funds by Sponsors

A remarkable volume of the ÖzÜ's research funds comes from national funding agencies (78,31%). The rest comes from international institutions, which are essential for funding future of technology and society. National funds come from TÜBİTAK (39,74%), university industry collaboration (30,98%), development agencies (5.22%) and other national agencies whereas international funds are mostly EU grants (15,78%) and other international funds (7,07%).

In 2022, TÜBİTAK projects, which constitute 16,62% of the research volume, are followed by the university industry partnerships at 61,69 %, EU funds at 5,29%, and other projects sponsored by other institutions.

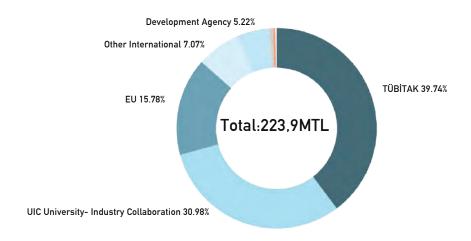


Figure 3. Total Research Funds by Sponsors (2009-2022)

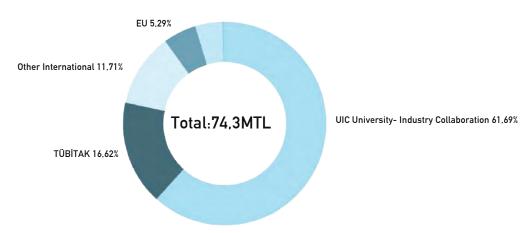


Figure 4. Total Research Funds by Sponsors in 2022

### 1.3 13-Year Research Fund History by Sponsors

ÖzÜ's year-on-year cumulative research volume is presented in Table 1.

Sponsor	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Awards	30.644		60.286	110.954	53.793	20.000	41.468	40.000		50.000			160.000	6.000	573.145
Other National								210.000		115.920				305.000	630.920
Ministry of Science, Industry and Technology	100.456			223.930	648.122	270.693	274.939				0				1.518.140
Development Agency					2.514.000	980.000	2.792.474		0	1.936.640		286.156	0	3.171.454	11.680.724
Other International			2.835	399.704	468.623	452.459	400.711	1.088.301	517.544	598.250	1.959.539	1.081.282	163.347	8.704.456	15.837.051
EU	603.732	1.179.718	765.223	5.266.254	2.845.505	2.267.108	1.054.144	972.130	3.145.104		4.213.287	5.444.102	3.662.321	3.930.947	35.349.575
UIC University-Industry Collaboration		472.595	246.484	540.620	736.103	2.438.703	1.412.641	1.596.509	1.538.339	1.641.303	2.500.963	6.980.081	3.409.996	45.856.606	69.370.943
TÜBİTAK <b>TOTAL</b>	551.695 <b>1.286.527</b>	1.351.205 <b>3.003.518</b>	1.052.184 <b>2.127.012</b>	726.225 <b>7.267.687</b>	1.698.496 <b>8.964.642</b>	4.549.434 <b>10.978.397</b>	3.637.488 <b>9.613.865</b>	6.956.361 <b>10.863.301</b>	3.969.407 <b>9.170.394</b>	12.337.452 <b>16.679.565</b>	15.353.598 <b>24.027.387</b>	16.945.621 <b>30.737.242</b>	7.504.092 <b>14.899.756</b>	12.354.780 <b>74.329.243</b>	88.988.038 223.948.536

Table 1. Research Funding by Sponsors\* (2009-2022) (TL)

### 1.4 Total Research Funds by Faculty and Schools

The Faculty of Engineering at ÖzÜ is the leading academic unit in terms of the total sponsored research funds received between 2009 and 2022 with the share of 70,16%. In the overall distribution, the Faculty of Engineering was followed by the Faculty of Architecture and Design, the Faculty of Social Sciences, and the Center for Energy, Environment and Economy 6,28%, 5.00%, and 4,49%, respectively. The distribution among faculties and schools at ÖzÜ for the period of 2009-2022 is demonstrated in Figure 5. Similarly, the Faculty of Engineering has the biggest share (74,46%) in 2022 followed by the Faculty of Architecture and Design (10,96%) as shown in Figure 6.

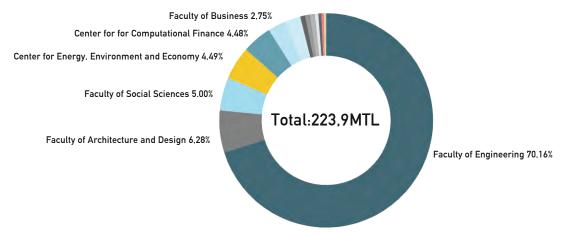


Figure 5. Total Research Funds by Faculty (2009-2022)

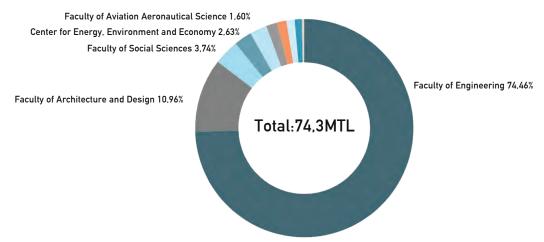


Figure 6. Total Research Funds by Faculty in 2022

### 1.5 14-Year Research Fund History by Faculty and Schools

The year-on-year distribution of ÖzÜ's sponsored research volume by faculties and schools is presented in Table 2.

Faculty/Center	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Faculty of Engineering	1.049.784	2.638.758	1.508.471	2.781.869	6.214.062	6.378.481	6.250.656	8.608.409	7.772.442	4.927.409	20.528.562	23.154.575	9.952.838	55.349.238	157.115.554
Faculty of Architecture and Design						234.808	542.552	416.697	80.515	133.425	2.950	3.748.102	896.350	8.145.163	14.200.562
Faculty of Social Sciences		132.070			210.040	1.219.438	683.293	802.048	690.524	25.000	2.070.916	72.160	2.544.623	2.782.766	11.232.878
									11.800	8.603.026	19.470	1.390.426	1.138.970	28.320	11.192.012
Center for Energy, Environment and Economy		5.315	551.304	3.949.823	1.509.756		781.248		231.229		871.203	196.165		1.952.586	10.048.629
Center for Computational Finance	15.322				739.000	2.184.400		378.200	20.850		63.720	871.734	6.265	1.887.528	6.167.019
Faculty of Business	221.421	227.375	67.237	233.709	78.990	626.225	585.613	584.947	224.634	1.089.294	260.620	44.670	60.000	918.519	5.223.254
Technology Transfer Office							40.000	3.000	94.400	1.179.750	132.160	286.156			1.735.466
Faculty of Aviation and Aeronautical Science <b>TOTAL</b>	1.286.527	3.003.518	2.127.012	<b>7.267.687</b>	8.964.642	0 <b>10.978.397</b>	19.116 <b>9.613.865</b>	70.000 <b>10.863.301</b>	44.000 <b>9.170.394</b>	54.400 <b>16.679.565</b>	51.920 <b>24.027.387</b>	165.200 <b>30.737.242</b>	58.410 <b>14.899.756</b>	1.194.582 <b>74.329.243</b>	1.657.628 223.948.536

Table 2. Research Funding by Faculty and Schools (2009-2022) (TL)

### **SECTION II**

### **RESEARCH PROJECTS FROM 2022**

This section presents national or international research projects accepted in 2022.



Table 3. Projects Eligible to Receive Grant Support in 2022

lumber	Program Name	Project Name	Project Coordinator
1	TÜBİTAK 4005	Improving Instructors' Innovation-oriented Competence Skills	Asst. Prof. Ahmet Murat Fiş
2	Other International	Ambassadors Fund for Cultural Preservation	Assoc. Prof. Alessandro Camiz
3	Award	Award of BAGEP- 2022	Asst. Prof. Ali Sipahi
4	Other International	2022 Turkey Working Class Protest Survey	Asst. Prof. Alpkan Birelma
5	Award	Geometric Expansion of Ankara Cenab-ı Ahmet Pasha Mosque Crown Gates Muqarnas	Assoc. Prof. Aslı Ağırbaş
6	TÜBİTAK 1002	Bureaucracy, Capital and Labor in Ottoman Forestry, 1839- 191	Instr. Başak Akgül Kovankaya
7	Other EU	Evidence and Acceptance - From Experiments to Transformation	Assoc. Prof. Bekir Oğuz Bartın
8	Award	January 5 - Park and Vicinity Urban Desing Competition- Purchase Award	Asst. Prof. Beyza Şat
9	Horizon Europe	Adaptable Technological Solutions Based on Early Design Actions for the Construction and Renovation of Energy Positive Homes	Dr. Cem Keskin
10	Other EU	Gender Backlash in Turkey: The Case of State - Sponsored KADEM	Assoc. Prof. Çimen Günay Erkol
11	TÜBİTAK 3501	Multi-Disaster Impact and Mitigation Decisin for Industrial Structures	Asst. Prof. Derya Deniz
12	TÜBİTAK İkili İşbirliği	Optimization of Collection Strategies from Delinquent Customers	Prof. Ekrem Duman
13	TÜBİTAK 1001	BalanSENS:Robotic Platform System for Sensroy-Pre and Post-Sensory Balance Analysis, Rehabiliton and Support	Elif Çetinsoy
14	TÜBİTAK 1002	Prediction of RNA Changes in Multiple Species by Deep Learning and Natural Language Processing	Asst. Prof. Emre Sefer
15	Other EU	Political Party Representation of Anti-Immigration Attitudes: The Case of Turkey	Asst. Prof. Ezgi Elçi
16	Award	TÜBİTAK Above Thresold Award	Asst. Prof. Ezgi Elçi
17	TÜBİTAK 1001	Indigenization and Anti-Emigration in Turkey	Asst. Prof. Ezgi Elçi
18	Award	Award of BAGEP- 2022	Asst. Prof. Gökçe Elif Baykal
19	Award	Harvesting Energy Efficiency in the Electricity Distribution Sector( Harvest Phase 2 Project) Efficiency in Transformers Work Package	Asst. Prof. Göktürk Poyrazoğlu
20	TÜBİTAK 1002	Application of Blockchain Technology in Marine Transportation in Turkey: Pilot Study	Asst. Prof. Gülfer Meriç
21	COST	Enabling Multilingual Eye-Tracking Data Collection for Human and Machine Language Processing Research	Asst. Prof. Hakan Karşılar
22	TÜBİTAK 3501	Determination of the Reliability Limits of Coherent Bragg Diffraction Technique for the Analysis of Ultrasmall Nanocrystals	Asst. Prof. Hande Öztürk Kaymaksüt
23	Award	Award of BAGEP- 2022	Asst. Prof. İhsan Yanıkoğlu
24	TÜBİTAK 1001	Computational Investigation of the Performance of Amorphous MOF-Filled Mixed Bed Membranes for Natural Gas Purification	Asst. Prof. İlknur Eruçar Findikçi
25	TÜBİTAK 2209-A	Classifying LPI Radar Waveforms with Time-Frequency Transformations Using Multistage Cnn	İslam Güven
26	Horizon Europe	European ECOsystem for GreeN Electronics	Asst. Prof. İsmail Aktürk
27	TÜBİTAK 2232	Hardware/Software Innovations and Optimization for Heterogeneous High-Performance, Energy-Efficient Computing Platforms	Asst. Prof. İsmail Aktürk
28	TÜBİTAK 1001	Development of New Energy Efficient Neuromorphic Methods Inspired by Neurochemical Processes	Asst. Prof. İsmail Aktürk
29	TÜBİTAK 2218	New Approaches to Improve Success in Optical Radio Communications	Kardeş Aslan
30	TÜBİTAK 2218	Effect of Superplasticizer Additive and Waste Tempered Glass Aggregate on Printable Fly Ash Based Geopolymer Properties	Kemal Karakuzu
31	Other EU	Inclusive Aviation	Asst. Prof. Luis Martin Domingo
32	Other International	Inequalities, Community Resilience and New Governance	Mìhaí Varga

Number	Program Name	Project Name	Project Coordinator
33	TÜBİTAK 3501	Couple Therapy Effectiveness and Change Process Research in Turkey	Asst. Prof. Münevver Selenga Gurmen
34	Award	ITN (ENLIGHTEM) Success Award	Prof. Murat Uysal
35	TÜBİTAK İkili İşbirliği	Comparison of Turkish and Slovenian Laws on Dispute Resolution Mechanism Regarding Art and Cultural Property	Prof. Nuray Ekşi
36	TÜBİTAK 1001	Coordinated Management of Uncertainty in Refugee Camp Inventory Operations	Assoc. Prof. Ömer Erhun Kundakcıoğlu
37	TÜBİTAK 3501	River Reclamation in Mediterranean Anatolia: Environment, Politics and Society in the Late Ottoman Period (1850-1914)	Instr. Özkan Akpınar
38	Other EU	Eaquals Member Event Funding	Instr. Özlem Baykan Bülbül
39	TÜBİTAK 3501	Women's Organization in the Post-War Period in Turkey(1945-1960)	Instr. Özlem Dilber
40	Award	Project of H2020 Comrade-TÜBİTAK Success Award	Asst. Prof. Regaip Barkan Uğurlu
41	TÜBİTAK 1001	Arching Mechanism for Infill Structures Supported by High Modulus Columns	Prof. Safiye Feyza Çinicioğlu
42	TÜBİTAK 2209-A	Association of Nostalgic Memory Activation with the Affective Fading Effect	Sude Hammal
43	TÜBİTAK 1601	Ozyegin University Venture Factory BIGG Acceleration Program	Süha Soydan
44	Horizon Europe	Countering Oppositional Political Extremism through Attuned Dialogue: Track, Attune, Limit	Asst. Prof. Susan Beth Rottmann
45	Horizon Europe	De-centring the Study of Migrant Returns and Readmission Policies in Europe and Beyond	Asst. Prof. Susan Beth Rottmann
46	TÜBİTAK 1001	Food, Homemaking and Social Integration for Syrian Women in Istanbul, Gaziantep and Hatay	Asst. Prof. Susan Beth Rottmann
47	Other EU	Human Mobility. Global Challenges and Resilience in an Age of Social Stress	Asst. Prof. Susan Beth Rottmann
48	Award	Award of BAGEP- 2022	Asst. Prof. Veli Özçelik
49	Other EU	Activate the University for Climate Change	Dr. Yasemin Kilit Aklar
50	TÜBİTAK 2209-A	Investigation of Psychosocial Health of University Students in the Context of Individual and Environmental Supports	Zeynep Acar
51	Award	Award of BAGEP- 2022	Asst. Prof. Zeynep Başaran Bundur
52	TÜBİTAK 1505	Development of Cement Based Plaster Mortars with Self- Healing Properties	Asst. Prof. Zeynep Başaran Bundur
53	Award	TÜBİTAK Above Thresold Award	Asst. Prof. Zeynep Başaran Bundur

### **SECTION III**

INTELLECTUAL PROPERTY RIGHTS (IPR) AND COMMERCIALIZATON

This section focuses on IPR Management Overview for the years 2013-2022.



### 4. Intellectual Property Rights (IPR) Management at ÖzÜ

ÖZÜ as maintained its place in the top 10 in the Entrepreneurial and Innovative University Index (GYÜE) for the last two years. We rank in the top 1 in the "Intellectual Property (IP) Pool" dimension of the index. This success is the result of the IP strategies of ÖzÜ and our rich IP portfolio.

ÖzÜ's annual research funds reached 147,7 million TL last year. This research volume leads to new technology, IP applications, software, and commercial products. ÖzÜ TTO is responsible for the management of IP portfolio and converting these assets into commercial value for the benefit of the industry and public. ÖzÜ TTO IP Team works closely with ÖzÜ inventors to protect and commercialize their IPs.

By the end of 2022, 32 new inventions were disclosed by ÖzÜ faculty members and students. ÖzÜ TTO organized some activities such as "Invention Disclosure Days" and "ÖzÜ Patent Competition" to encourage new applications. ÖzÜ TTO filed 45 new patent applications, 1 utility model applications in 2022 thus the number of total patent applications reached to 382.ÖzÜ's IP portfolio contains 167 granted patents out of which 20 were granted in 2022. Since 2013, 173 joint patent applications have been filed with industry and other universities. There is a wide range of technologies developed at ÖzÜ including those in Lighting and Energy Technologies, Mechanical and Thermal Technologies, Information and Communication Technologies, Prostheses & Exoskeleton Systems, Industrial Application, Construction Materials, MaterialTechnologies.

The statistics of ÖzÜ IP portfolio between 2013-2022 are summarized in Figure 7 and the activities carried out in 2022 are given in Figure 8.

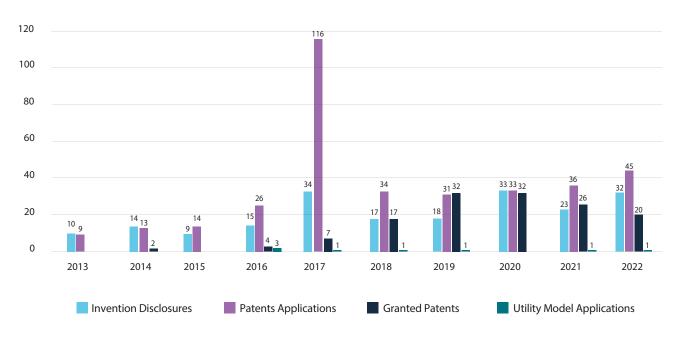


Figure 8. Patent & Utility Model Portfolio Statistics of ÖzÜ (2013-2022)

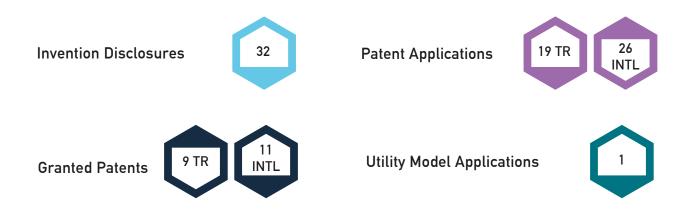
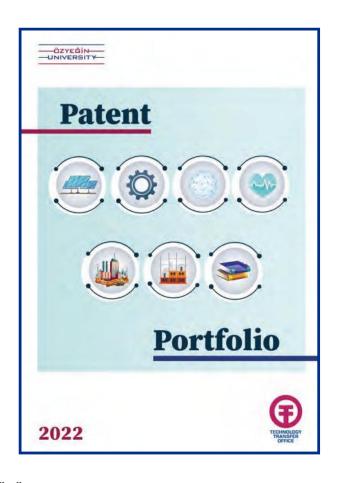


Figure 9. IPR Performance in 2022

### 3.1. ÖzÜ Technologies





ÖzÜ Technologies are introduced in Patent Portfolio. https://tto.ozyegin.edu.tr/en/tto-publications

### **SECTION IV**

### LIST OF PATENT APPLICATIONS AND REGISTRATIONS IN 2022

This section presents the list of patent applications and registered patents of ÖzÜ in 2022.



Table 4. National Patent Applications of  $\ddot{\text{O}}\text{z}\ddot{\text{U}}$  in 2022

Number	Title of Invention	Application Number	Application Date	
1	An Adaptable Vent System to Provide	2022/002597	24.02.2022	
	Local and Customized Thermal Comfort			
2	A Method for Displaying Points of Interest in a Media Player	2022/002708	25.02.2022	
3	A Controllable Artificial Hand System	2022/050183	28.02.2022	
4	A Specific Heuristic Solution Method for the Day-Ahead Electricity Market Clearing Price Determination Problem	2022/010322	21.06.2022	
5	A Robotic Balance Rehabilitation Device	2022/011116	5.07.2022	
6	A System for Processing Images Taken via Aircraft	2022/011774	25.07.2022	
7	Innovation in a Robotic Hand Prosthesis	2022/012480	8.08.2022	
8	A Method to Recover Modular Software Architecture	2022/013118	19.08.2022	
9	A New Bioplastic and a Method for Its Production	2022/013212	22.08.2022	
10	A Guidance Kit for Catheters	2022/01 6807	7.11.2022	
11	A System and Method for Quantum Key Distribution with Entangled Photon Pairs	2022/018838	8.12.2022	
12	A Device for Safe Human Attachment to Exoskeletons	2022/019388	15.12.2022	
13	Constructing an Actuator for Use in Robot Systems	2022/019645	19.12.2022	
14	A System and Method for Managing Neural Network Models	2022/019646	19.12.2022	
15	A Sitting Support Exoskeleton	2022/020815	27.12.2022	
16	An Exoskeleton System	2022/020814	27.12.2022	
17	A System Using Shape Memory Alloy in Drug Delivery		27.12.2022	
18	An Accident Notification Signal Transmission System	2022/020615	28.12.2022	
19	An Electric Vehicle	2022/021822	30.12.2022	

Table 5. International Patent Applications of  $\ddot{\text{O}}\text{z}\ddot{\text{U}}$  in 2022

Number	Title of Invention	Application Number	Application Date	
1	A Novel Thixotropic And Rhelogic Regulating Admixture Material For Cement Based Mortars And Production Of Cement- Based Compositions Including The Admixture Materials	PCT/TR2022/050057	25.01.2022	
2	Accident Notification System	PCT/TR2022/050174	28.02.2022	
3	Method For Indicating Interest Points In A Media Player	US17/638,864	28.02.2022	
4	Atomizer And Atomization System Using The Same	US17/638861	28.02.2022	
5	A Controllable Artificial Hand System	PCT/TR2022/050183	1.03.2022	
6	A Robotic Balance Rehabilitation Device	PCT/TR2022/050927	31.08.2022	
7	A System For Processing Images Acquired By An Air Vehicle	PCT/TR2022/050926	31.08.2022	
8	Fluid Atomizer	EP21729668.0	7.10.2022	
9	Fluid Atomizer With Helical Inlet Channel	EP21728666.5	7.10.2022	
10	A Method For Providing Modular Software Architecture Recovery	PCT/TR2022/051148	17.10.2022	
11	An Innovation In Robotic Hand Prosthesis	PCT/TR2022/051147	17.10.2022	
12	2 Degrees Of Freedom Prosthetic Wrist Structure	EP21800201.2	1.11.2022	
13	Guiding Assembly For Catheters	US 17/923,627	7.11.2022	
14	Transfemoral Prosthesis For Walking, Sitting- Standing, Stair Climbing	US 17/924,123	9.11.2022	
15	A Bi-Metal Smart Actuator	EP20934573.5	16.11.2022	
16	System And Method For Quantum Key Distribution With Entangled Photon Pairs	US 17/928,619	30.11.2022	
17	A New Bioplastic And A Production  Method Thereof	PCT/TR2022/051335	22.12.2022	
18	A Chairless Chair Exoskeleton	EP20968128.7	26.12.2022	
19	An Exoskeleton System	EP20968129.5	26.12.2022	
20	System And Method For The Management Of Neural Network Models	US18/013,271	28.12.2022	
21	Actuator Embodiment For Use In Robot Systems	US18/013,276	28.12.2022	
22	A Generator For Usage in Electricity Generation And Heating In Buildings	WO2022146316A1	29.12.2022	
23	System Where Shape Memory Alloy is Used in Drug Release	US18/013,918	30.12.2022	
24	An Accident Reporting Signal Transmission System	PCT/TR2022/051670	29.12.2022	
25	An Attachment Device For Use in Exoskeleton Systems	PCT/TR2022/051672	29.12.2022	
26	An Electric Vehicle	PCT/TR2022/051759	31.12.2022	

Table 6. Registered National Patent Applications of ÖzÜ in 2022

Number	Title of Invention	Application Number	Application Date
1	Design and Production Method of a Building System in the Light of Structural and Environmental Factors	2018/09558	4.07.2018
2	Bir Güneş Enerjisi Üretim Sistemi ve Yöntemi	2021/004738	28.09.2018
3	Mimo Communication Device and Information Transmission Method	2022/004595	30.06.2017
4	Identification and Labeling System and Method	2022/005751	9.11.2017
5	Robotic Manipulator with Pneumatic Artificial Muscle	2021/004581	10.09.2018
6	Electronic Device and Method of Operating an Electronic Device	2022/011103	6.06.2017
7	A Propulsion System and Its Control Method to Achieve a Soft Landing	2021/007949	12.11.2018
8	Non-Adherent Post-Tensioned Precast Wall System for Buildings	2017/13348	11.09.2017
9	A Transfemoral Prosthesis for Walking, Sit-Stand, and Stair Climbing	2020/22508	30.12.2020

Table 7. Registered International Patent Applications of ÖzÜ in 2022

Number	Title of Invention	Application Number	Application Date
1	Identification And Tagging System And Method	EP3483590A1	9.11.2017
2	Data Transmission Method And Data Transmission Device	EP2016081998W	20.12.2016
3	Electronic Device And Method Of Operating An Electronic Device	EP3413161A1	6.06.2017
4	A Method For Generating A Haptic Effect And Device Employing The Method	KR20197022045A	21.09.2017
5	Identification Tag And Method Of Identifying An Object	JP2020530112A	6.10.2017
6	Method And Device For Generating A Haptic Effect	JP2019536076A	21.09.2017
7	Transducer And Method For Converting Mechanical Energy To Light Energy	EP17172291A	22.05.2017
8	Visible Light Communication Using Colour Shift Keying	JP2019525845A	22.12.2017
9	Robotic Manipulator Including Pneumatic Artificial Muscle	US201817274549A	10.09.2018
10	Storage Device And Method	EP17162782A	24.03.2017
11	Acousto-Optic Transducer, Array And Method	EP17708720A	24.02.2017

### **SECTION V**

### **ENTREPRENEURSHIP ACTIVITIES**

This section focuses on Entrepreneurship Activities carried out by ÖzÜ TTO, Center for Entrepreneurship and the Fit Startup Factory in 2022.



Özyeğin University Center for Entrepreneurship has contributed to the growth of entrepreneurship ecosystem in and outside the university in 2022.

The programs managed and the events organized by the Center has helped individuals develop their entrepreneurship competencies, triggered the establishment of new startup companies and supported the growth of existing startups.

#### **Entrepreneurship Milestones** printle for Arabk 2022 Girişimcilik Merkezi Destek Uluslararası Öğrenciler İçin Türkiye is Bankası ile lik Programı TÜBİTAK BİGG UK Programi Pilot Uygulaması Yetkisi Kazanıldı Kasım 2018 ikçi Arayüz Yapıları BIGG Platformu (YAY) Projesi TÜBİTAK 4005 Projesi TÜBİTAK BİĞĞ UK TÜBİTAK BİĞĞ UK Yetkisi Kazanıldı Yetkisi Kazanıldı BIGG General Electric (GE) BIGG İnovasyon Merkezi Eylül 2012 General Electric Ulusal/Uluslararası Mentörlük TÜBİTAK BİGG UK Türkiye'nin ilk ve Melek Yatırımcı Ağı Başarısızlık Zirvesi Yetkisi Kazanıldı Olusturulması Projesi lart 2017 Mart 2011 syon Merkezi Girisim Fabrikası ÖzÜ-Ocak 2017 Nisan 2010 invest istanbul **Kasım 2013** Türkiye'nin ilk Kurumiçi Erasmus for Young Türkiye'nin ilk Donanı 10.000 Kadın Programı Entrepreneurs Girisimciliği Hızlandırma Girlşimcilik Konferansı Programina Katılım Programi **10.000**° Nisan 2009 Girişimcilik Merkezi

#### **Entrepreneurship Support Programs**

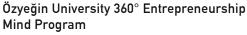


### **Privileged Supports Provided to Entrepreneurs**



### **Entrepreneurship Support Programs**









Özyeğin High School Summer Program

### **Entrepreneurship Programs**





**HEIght Project** 

### Implementing Organization Activities

In 2022, UK activities continued with the 2021-1, 2021-2 Green Growth, 2022-1, 2022-2 Green Growth calls.











Information and experience were shared in partnership with Türkiye İş Bankası in the application for the 2022 1601-Support Program for Capacity Increasing in the Fields of Innovation and Entrepreneurship.



Innovation-Centered Entrepreneurial **Competencies Program** for Educators



Start Local and Go Global Okan Dursun



Jet Stream Online Bootcamp Ready to go from idea to first sale



Starting in another country! Lawrance Merrit

Global Entrepreneurship Week Events

10 different sessions and Demo Days were held to develop the capacity of technology entrepreneurs to manage their investment processes in the most efficient way.

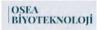




















#### **Entrepreneurship Programs**











SEV Schools Mission Possible Program Women Leaders in Real Estate Masterclub Trainings Game Entrepreneurship Academy: 9999in1Space Program Revo Building Bridges Event Sectoral Insights and Roadmap in Digital Transformation Workshop "Let It Grow with Funds Crowdfunding Platform" Collaboration

#### **News from Entrepreneurs**

Revel Games Received \$4.5 Million Seed Investment!

"Counterfake" is at the World's Largest Technology Fair CES 2022!

Albef Received Investment with a Valuation of 6.25 Million TL!









Pacha Completed its 2nd Investment Round!

Üniversitede doğan yerli sağlıklı gıda girişimi turunu tamamladı

**PERZONALIZATION** 







27

3Exit!

### **SECTION VI**

LIST OF EVENTS AND TRAININGS ORGANIZED AND PARTICIPATED BY ÖzÜ TTO IN 2022



Table 8. Events and Trainings Organized and Participated by ÖzÜ TTO in 2022

Number	Training/Event	Date
	Research on Urban and Rural Settlement Systems in Türkiye (YER-SIS) Project	31.05.2022
1	Webinar Event Horizon Europe Marie Sklodowska-Curie Actions 2022 Calls Conference	25.05.2022
2	EU Programs and Project Opportunities Workshop	11.05.2022
3		12-13.05.2022
4	7th and Final Information Multipliers Training	
5	PMI Disciplined Family Working Group Training Meeting	9.05.2022
6	Innovation Leadership Certificate Program	23.05.2022
7	TIM InoSuit Program 3-Month Evaluation Meeting Presentation	3.06.2022
8	Erasmus+ Alliances for Innovation	21.06.2022
9	The Gender Equality Plan Eligibility Criterion in Horizon Europe: Who is Concerned? How to Comply with It? ÖZÜTTO TÜBİTAK Panel Presentation Consultancy Session - Incubator BIGG	23.06.2022
10	Acceleration Program (2022-1)	3.06.2022
11	Technology-Oriented Industrial Initiative Program Mobility Call Introduction and Information Meeting	9.06.2022
12	ISO Horizon Europe Information Webinar	21.06.2022
13	ISO ISO Horizon Europe Basic Level Training	23.06.2022
	Technology-Oriented Industrial Initiative Program Mobility Call Introduction and	9.06.2022
14	Information Meeting	7.00.2022
15	Istanbul Project Academy Horizon Europe Information Webinar	21.06.2022
16	Istanbul Project Academy Horizon Europe Introduction Training	23.06.2022
17	Unitary Patent System (Espacenet)	2.06.2022
18	Patent Research	3.06.2022
19	Patlib Session	7.06.2022
20	USIMP Innovation Scorecard Training	10.06.2022
21	USIMP Current Situation Analysis Training	13.06.2022
22	USIMP Webinar - Patent-Based Commercialization Support Meeting	15.06.2022
23	Teaching Intellectual Property Rights: Patents and Utility Models (TURKPATENT)	16.06.2022
24	Benefits of Patent Information: Reaching Different Target Audiences	23.06.2022
25	Marmara Technopark - Research and R&D - Impact on Innovation Interaction and Project Process Meeting	22.07.2022
26	YAY-YÜKA International Panel	20.07.2022
27	Digital Twin Technology Industrial Applications Online Training	22.07.2022
28	Innovation Scorecard Training	26.07.2022
29	Excel Training with Applications Online Training	29.07.2022
30	ISIF 22	31.08.2022
31	Teknofest	31.08.2022
32	TÜBİTAK-organized CETPartnership TRI 1, TRI 4, and TRI 5 Information Event	2.08.2022
33	Training for Winning Horizon Europe Grant Applications in Social Sciences	22-23.08.2022
34	ISO Horizon Europe Intermediate Level Training	15-16.08.2022
35	TÜBİTAK - TEYDEB REPORTS KEY POINTS	24.08.2022
36	Istanbul Project Academy Horizon Europe Intermediate Level Trainings	15-16.08.2022
37	Istanbul Project Academy Horizon Europe Health Cluster Calls Review Webinar	22.08.2022
37	Istanbul Project Academy Horizon Europe Culture, Creativity, and Inclusive Societies	
38	Calls Review Webinar	22.08.2022
39	System Global - Key Points of TÜBİTAK - TEYDEB Reports	24.08.2022
40	System Global - Remote Working and DGS Applications in R&D Centers and Technology Development Zones	25.08.2022
41	Istanbul Project Academy Horizon Europe Civil Security Calls Review Webinar	31.08.2022
42	Istanbul Project Academy Horizon Europe Digital, Industry, and Space Calls Review Webinar	31.08.2022
43	YAY-YÜKA International Panel	20.08.2022
44	Digital Twin Technology Industrial Applications Online Training	22.08.2022
45	Innovation Scorecard Training	26.08.2022

Number	Training/Event	Date
46	Excel Training with Applications Online Training	29.08.2022
47	ISIF 22	30.08 - 2.09.2022
48	TEKNOFEST	30.08 - 2.09.2022
49	ISIF 22	30.08 - 2.09.2022
50	TEKNOFEST	30.08 - 2.09.2022
51	Istanbul Chamber of Commerce Project and Business Development Directorate - Digital Marketing and Branding Training	22.08 - 14.09.2022
52	ISIF 22	30 - 31.08.2022
53	TEKNOFEST	30 - 31.08.2022
54	Istanbul Project Academy Horizon Europe Basic Level Training	2.09.2022
55	ISO Positive Psychology Training in Business Life	2.09.2022
56	ISO - Innovation and Entrepreneurship Webinar	16.09.2022
57	ISO Industrial Property Valuation's Economic and Strategic Contribution webinar	20.09.2022
58	Saha Expo Defense & Aerospace Fair	25.10.2022
59	The State of Food Security and Nutrition in the World	4.10.2022
60	ISO – Advanced Excel Training	6.10.2022
61	ISO - Horizon Europe Basic Level Training	11.10.2022
62	ISO - Public Speaking with Confidence, Diction, and Art of Oratory Online Training	14.10.2022
	ISO Inner Vision: Journey from Information to Strategy in Decision Making Online	
63	Training	21.10.2022
64	Saha Expo Defense & Aerospace Fair	26.10.2022
65	Horizon Europe General Info Days	11.10.2022
66	Saha Expo Defense & Aerospace Fair	27.10.2022
67	Horizon Europe General Info Days	11.10.2022
68	Workshop on Sectoral Insights and Roadmap in Digital Transformation	20.10.2022
69	Starting in a Foreign Country! How to Revolutionize Used Car Sales? - VavaCars	21.11.2022
70	Starting in a Foreign Country! How to Revolutionize Used Car Sales? - VavaCars	21.11.2022
71	ISO - Unconscious Bias Online Training	23.11.2022
72	ISO - Memory Enhancement with Brain Exercises Webinar	30.11.2022
73	İSTKA Talent Istanbul Information Meeting	8.11.2022
74	Horizon Europe Marie Skłodowska-Curie Actions: Bridging Business and Research What opportunities you can find under MSCA Staff Exchanges	14.11.2022
75	TÜSEB Introduction Meeting	16.11.2022
76	İSTKA Talent Istanbul Information Meeting	8.11.2022
77	TÜSEB Introduction Meeting	16.11.2022
78	TÜSEB Introduction Meeting	16.11.2022
79	Horizon Europe Marie Skłodowska-Curie Actions: Bridging Business and Research What opportunities you can find under MSCA Staff Exchanges	14.11.2022
80	Horizon Europe Cluster 5 Energy Solar Energy Calls National Consultation Meeting	18.11.2022
81	Horizon Europe Proposals from Experts' Perspective National InfoDay	21.11.2022
82	Revo Building Bridges Event	9-10.11.2022
83	Software-Based Technology Transfer RTTP Training	12-13-14.12.2022
84	TÜBİTAK Programs Introduction and Project Writing Event - Dr. Ceren Kutlu Kaya	19.12.2022
85	TÜBİTAK Programs Introduction and Project Writing Event - Dr. Ceren Kutlu Kaya	19.12.2022
86	TÜBİTAK Programs Introduction and Project Writing Event - Dr. Ceren Kutlu Kaya	19.12.2022
87	TÜBİTAK Programs Introduction and Project Writing Event - Dr. Ceren Kutlu Kaya	19.12.2022
88	TÜBİTAK Programs Introduction and Project Writing Event - Dr. Ceren Kutlu Kaya	19.12.2022
89	TÜBİTAK Programs Introduction and Project Writing Event - Dr. Ceren Kutlu Kaya	19.12.2022
90	SMI Signing Ceremony	24.02.2022
91	1702 Patent-Based Technology Transfer Support Call Information and Experience Sharing Day, ISO	23.03.2022
92	Towards a Sustainable Future	28.03.2022
93	Patent Awareness and Information Training-Patent Platform,	16.02.2022
	<u>-</u>	<u> </u>

Number	Training/Event	Date
94	SMI Signing Ceremony	24.02.2022
95	Criteria for Patentability-Escrow	11.03.2022
96	Pharmaceutical and Biotechnological Inventions - EPO-TURKPATENT	16.03.2022
97	1702 Patent License Call Information and Experience Sharing, TÜBİTAK-ODTÜ	5.04.2022
98	Towards a Sustainable Future	28.03.2022
99	Horizon Europe Information Day Tübitak	10.02.2022
100	Finance Group TÜBİTAK Projects Presentation	12.01.2022
101	MSCA Staff Exchange Program in Horizon Europe	19.01.2022
102	Horizon Europe Program Cultural, Creative and Inclusive Societies Calls Presentation	21.01.2022
103	Horizon Europe Widening Participation: ERA Chairs	21.01.2022
104	CONNECT and SCALEUP Training	24-25.02.2022
105	Horizon Europe Launch Event	21-22.03.2022
106	Opening Meeting of School Education Collaboration Partnerships (KA220-SCH) Projects	30.03.2022
107	KOSGEB R&D, UR-GE and Innovation Support Program	5.01.2022
108	TÜBİTAK TEYDEB 1501/1507 Projects 2022-1 Call What You Need to Know	12.01.2022
109	WEBINAR22-1: Sustainable R&D in the University-Industry Collaboration Axis: Practical Examples from the IT Sector	19.01.2022
110	WEBINAR22-4: Successful Clustering Examples with Support Programs from the World and Turkey	9.02.2022
111	Memory Strengthening Webinar with Brain Exercises	18.02.2022
112	SMI Signing Ceremony	24.02.2022
113	Eurostars Online Information Day Event	4.03.2022
114	ISO Emotional Intelligence Online Training	16.03.2022
115	PMI Disciplined Agile Working Group Training Meeting	21.03.2022
116	PMI Disciplined Agile Working Group Training Meeting	28.03.2022

## ÖzÜ TTO Team





Dr. İsmail Arı Director of Knowledge, Technology Transfer and Entrepreneurship

Dr. İsmail Arı, who is currently Özyeğin University's TTO and Entrepreneurship Director, served as the Vice President of TÜBİTAK (The Scientific and Technological Research Council of Turkey) and Deputy General Manager of Teknopark Istanbul between 2013-2018. Before these roles, he worked as an Assistant Professor at Özyeğin University in Computer Science Department and a senior researcher at Hewlett Packard Labs in Silicon Valley/USA (2004-2009). He received his PhD degree in 2004 from University of California Santa Cruz, Computer Science Department. His research areas include big data, cloud computing, and networked storage systems. He has international publications and US patents related to these topics. After joining Özyeğin University in 2009 he has received several awards and research grants including IBM Top Faculty Contributor Award, EU Marie Curie IRG (International Reintegration Grant), TÜBİTAK National Young Researcher Career Award, and Rector's Merit Award. Dr. Arı, has also been involved as a lead investigator, consultant and referee in a large numbers of industrial projects within the scope of University Industry Cooperation. Dr. Ari is a member of IEEE, ACM and a founding member of the IBM Cloud Academy.



Nazlı Ceylan University Industry Collaboration Manager

Nazlı Ceylan obtained bachelor's degree Public Finance Department and her master's degree in Accounting and Auditing. Since 2008, she has provided consultancy services about national finance resources to many of the leading companies of Turkey. She has experience in project management and reporting of TUBITAK (TEYDEB& ARDEB), KOSGEB, Development Agencies, National Agency and Ministry projects. Additionally, she joined the "Business Development Mentoring Training" program which was funded by TUBITAK 1601 program and she is still a Mentor.



Elif Akbaş Şener, RTTP IPR and Commercialization Manager

Elif Akbaş Şener holds a BS degree from Department of Statistics at Yıldız Technical University in 2011 and also worked as market research analyst at IPSOS during her education. After her graduation, she started to work at NoviCor Technology Partners and provided consulting services for R&D companies and entrepreneurs as Project Manager between 2011-2016. The main roles in this company were domestic and international R&D funds, project management, university-industry collaboration and relationship management in innovation ecosystem. She also focused on strategical activities to gain technology related clients like new customer visit, company promotion, management of bidding and contracting processes and to build customer relationships as Business Development Manager. In the middle of 2016, she joined one of successful start-up in the international area, EVAM Computing Consulting A.Ş. as Sales Operation and Customer Relationship Manager.



Süha Soydan Entrepreneurship Support Programs Manager

Süha Soydan joined Özyeğin University in 2009. Prior to his current role, he served as the National Admissions Team Manager at Özyeğin University. In November 2016, he joined the Center for Entrepreneurship as Project Manager. Since 2017, he has been serving as Program Manager for the TUBITAK-funded BIGG Acceleration Program at the Fit Startup Factory. He is responsible for coordinating collective efforts to support the entrepreneurial activities of faculty, students, and alumni from Özyeğin University or other higher education institutions, and expanding collaborations in this area. He holds an M.A. in Teaching English as a Foreign Language (TEFL), a five-year BA & MA combined program in English Teacher Education, from Bilkent University. Prior to his graduation, he went on an exchange program in Austria within the scope of the Erasmus Program, and in the US with the Fulbright scholarship. He completed the Master of Arts in Business Administration at Özyeğin University and received an MBA degree in 2014.



Kübra Yüksel Event Communication and Visual Design Specialist

Kübra Yüksel received her bachelor's degree from Istanbul Technical University, Department of Urban and Regional Planning in 2019. After her graduation, she did a digital marketing internship for a year at Earnado, which a startup. Between 2020 and 2022, she worked as a corporate communication specialist at PROPIN Property Investment Consultancy. She participated on various platforms as a freelancer content editor during and after her undergraduate education. She continues her career as Event Communication and Visual Design Specialist at OzU TTO.



Nevra Bulut Grant Projects Specialist

She completed her undergraduate and master's degrees at Istanbul Technical University (ITU) Department of Geophysical Engineering in 2013 and 2016, respectively; and she completed her PhD at ITU Eurasia Institute of Earth Sciences in Geodynamics program in 2022. She worked as a research assistant at the Faculty of Mines and Eurasia Institute of Earth Sciences. She also visited the University of Oslo - Norway as a guest PhD researcher. And now she is a member of OzU TTO team as a specialist.



Müge Erdoğan University Industry Collaboration Specialist

Müge Erdogan received her BSc degree in 2016 and her MSc degree in 2021 from Yildiz Technical University, Physics Department. During her undergraduate studies, she also completed the associate degree from the programme of OEF (Open Education Faculty) Laboratory and Veterinary Health at Eskisehir Anadolu University. She continues her Ph.D. studies in physics at Yildiz Technical University as of 2021. In the period 2017 - 2018, she worked at the company of Fixa Construction Chemicals (R&D section). In between 2018 and 2019 she worked at Basarili Anatolian High School as a physics teacher. In July 2019, she worked in R&D centre at the company of Hatko as an R&D specialist.



#### Güler Çelik Karabulut Intellectual Property Rights Specialist

Güler Çelik graduated from Bartın University, Department of Molecular Biology and Genetics in 2018. During her high school education, she took part in the analysis department along with his internship at the Food Company Trouw Nutrition Turkey. Between 2018-2019, she worked as a Molecular Biologist at the Intergen Genetic Diagnosis Center. Within the scope of her duty, she undertook the duties of administrative affairs, organization, follow-up and taking part in R&D projects. She joined OzU TTO team in August 2019.



#### Cansu Kabasakal Entrepreneurship Support Programs Specialist

Cansu Kabasakal received her undergraduate degree from the Hacettepe University Department of Biology in 2015 and started to work as a Project Coordinator in ERES Biotechnology in the same year. Afterwards, she worked as Laboratory Assistant at Gazi University and later assisted in the preparation of application files for many support programs as freelance. Between 2019-2021, she worked as an Entrepreneurship Assistant Specialist at Ankara University Technopolis. She continues her career as Entrepreneurship Support Programs Specialist in The Center for Entrepreneurship at Özyeğin University.



### Gönül Topçu Uçgun Data Entry and Administrative Affairs Specialist

Gönül Topçu Uçgun, received her associate degree from the department of Accounting and Taxation at Istanbul University in 2011 and her undergraduate degree from the department of Business Administration at Anadolu University in 2016. She worked as a Customer Services Specialist at PROPIN Property Investment Consultancy between 2012 and 2021. She worked as Project Support Coordinator in the same company between 2021 and 2023. As of August 2023, she started to work as a Data Entry and Administrative Affairs Specialist at OzU TTO.



Çekmeköy - İstanbul

Phone: +90 (216) 564 9583 Email: tto@ozyegin.edu.tr