**2019-2020 Fall Graduate Applications**

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| **ACADEMIC ADVISOR** | **THESIS SUBJECT** |
| Prof. M. Kadri Aydınol | 1. Diffuse Carbon Membrane Cathode Development for Air Batteries2. Primary Lithium Ion Battery Development |
| Assist. Prof. Simge Çınar  | 1. Fabrication of Janus micro/nanoparticles 2. Design and Synthesis of Micro/Nanomotors3. 3D Printing of Ceramic Materials |
| Prof. Caner Durucan  | 1.Development of therapeutic agent-incorporated bone cements2.Development of bioceramic bone graft microspheres by biomimetic routes |
| Assist. Prof. Batur Ercan | 1. Nanostructured metallic coatings on polymeric materials for orthopedic applications2. Fabrication of nanophase topography on stainless steel stents |
| Assist. Prof. M. Bilge İmer  | 1. Development of HfO2 thin films with ALD for Si solar cell passivation2. Development of AZO thin films as TCO with ALD3. Investigation of structure and electrical property relationship of heattreated Pd rich alloys |
| Prof. Dr. İshak Karakaya  | 1.Electrochemical machining of deep tubular structures2.Modeling and development of coatings in deep tubular structures |
| Prof. Dr. Cevdet Kaynak  | A special topic on “Macro/Micro/Nano Polymer Composites” will be chosen by discussing with the student |
| Prof. Dr. Amdulla Mehrabov | 1.DESIGN AND DEVELOPMENT OF CRYSTALLINE ALLOYS FOR MAGNETIC REFRIGERATION APPLICATIONS2.MODELLING AND SIMULATIONS OF THE EFFECT OF CRYSTALLINE DEFECTS ON THE ENERGY SPECTRUM OF Cd1-xMnxTe SEMIMAGNETIC SEMICONDUCTOR COMPOUNDS3. DESIGN AND DEVELOPMENT OF Ni-based NANOALLOYS BY COMPUTER MODELLING and SIMULATIONS (Ab Initio, Monte Carlo, Molecular Dynamics etc.)4. DESIGN AND DEVELOPMENT OF BULK AMORPHOUS (METALLIC GLASS) ALLOYS BY COMPUTER MODELLING and SIMULATIONS (Ab Initio, Monte Carlo, Molecular Dynamics etc.)5. PRODUCTION BY HIGH-ENERGY BALL MILLING AND STRUCTURAL CHARACTERIZATION OF Ni-Ti NANOALLOYS6. EFFECT OF TERNARY ALLOYING ELEMENTS ADDITION ON PHASE STABILITY AND PHASE TRANSFORMATIONS IN Ti-Nb ALLOYS |
| Prof. Dr. Tayfur Öztürk | 1-Low-costt hydrogen separation membranes based on Pd-Co-Ni ternery systemM.Sc. Thesis/Full Time/ student will be supported by TUBITAK scholarship 2- Development of thin film LSF based cathode for IT solid oxide fuel cellsM.Sc. Thesis/Full Time/ student will be supported by TUBITAK scholarship3-Development of acidic Zn-MnO2 rechargeable batteriesM.Sc. Thesis/Full Time/4- Fabrication of Ni foam for battery applicationM.Sc. Thesis/Full Time/5- Design and fabrication of Ni substrates for bipolar batteries M.Sc. Thesis/Full Time/ |
| Prof. Dr. H. Emrah Ünalan | 1.Nanowires for electronics2.Design and development of novel supercapacitors |