

المشاريع التي ستدعمها الجامعة ضمن برنامج الخطة الوطنية للعلوم والتقنية والابتكار

Project Title	Program type	project number	م
A Control-Theory-Based Approach to Scheduling Optimization of Large Oil Refinery	Basic Research Program	2-17-01-001-0008	1
Pollutants and greenhouse gases in the atmosphere - understanding of radical processes towards a cleaner atmosphere	Basic Research Program	2-17-01-001-0061	2
INVESTIGATING THE ANTICANCER EFFECTS AND POSSIBLE UNDERLYING MECHANISM OF SOLANUM NIGRUM	Basic Research Program	2-17-03-001-0044	3
Productivity and Water Footprint Analysis of Vegetables Cultivated in Riyadh Region of Saudi Arabia: A Remote Sensing and GIS Approach	Basic Research Program	2-17-04-001-0016	4
Shotgun De novo sequencing and draft genome assembly of the C4 halophyte grass <i>Aeluropus litoralis</i> : towards the cloning of the halophyte-specific genes and their promoters	Basic Research Program	2-17-04-001-0046	5
Safe insecticides for mosquito control through RNAi. Phase one: screening of target genes from <i>Culex pipiens</i> and <i>Anopheles stephensi</i> .	Basic Research Program	2-17-01-001-0028	6
Investigating the responses of local bee race (<i>Apis mellifera jemenitica</i>) towards mass queen rearing and instrumental insemination techniques	Basic Research Program	2-17-04-001-0023	7
Construction of infectious clones from locally prevalent begomoviruses and their associated satellites for screening tomato germplasm for begomovirus resistance	Basic Research Program	2-17-04-001-0008	8
The development of novel anhydrous composite polymer membranes based on protic ionic liquids for H ₂ /O ₂ fuel cell application	Basic Research Program	2-17-01-001-0042	9
Bioactive compounds production from mycelia of edible fungi in Saudi Arabia.	Basic Research Program	2-17-01-001-0002	10
New approach for geohazard assessment of the salt structures and related soils in Jazan area, southwest Saudi Arabia	Basic Research Program	2-17-01-001-0014	11
Development and application of in vitro models for assessment of photo toxic potential of drugs	Basic Research Program	2-17-01-001-0031	12
Surface modified upconversion nano phosphors for dye-sensitized solar cells (DSSCs)	Basic Research Program	2-17-01-001-0036	13
Enhancement of Photophysical and Optoelectronic properties of PFO/MDMO-PPV/MEH-PV)/(SiO ₂ /TiO ₂) Nanocomposite Thin Films for unique Performance White Organic Light Emitting Diode.	Basic Research Program	2-17-01-001-0037	14
Seawater intrusion detection in the Rabigh-Yanbu coastal aquifers, Saudi Arabia, using integrated Geophysical and Geochemical techniques	Basic Research Program	2-17-01-001-0041	15
Identification and Characterization of New Cancer-Testis Antigen Gene Biomarkers in Saudi Patients with Colon Cancer.	Basic Research Program	2-17-01-001-0069	16
Improving the efficiency of vermicomposting (<i>Eisenia fetida</i>) of polluted organic wastes by adding biochar and mangrove fungi	Basic Research Program	2-17-01-001-0051	17
Preparation of hybrid organic-inorganic monolithic columns for capillary liquid chromatography and gas chromatography applications	Basic Research Program	2-17-01-001-0053	18
Interaction of structured light beams with autoionizing states of multielectron atoms	Basic Research Program	2-17-01-001-0057	19
Investigations into Rift Valley fever virus NSs protein interactions with host cell signalling and transcription	Basic Research Program	2-17-01-001-0060	20
Physicochemical and Toxicological Studies on New Formulation of Azo dyes and Curcumin Nano-particles as Safe and Healthy Food Color.	Basic Research Program	2-17-01-001-0080	21
Engineering of The Temperature-Dependent Optical, Electrical, and Magnetic Properties of ScCrN Alloyed Thin Films	Basic Research Program	2-17-01-001-0084	22
Chemical Vapour Identification Using Temperature Controlled Swelling Based Sensors	Basic Research Program	2-17-01-001-0086	23
Production of biofuels from seaweeds using marine microorganisms.	Basic Research Program	2-17-01-001-0049	24
Identification and Decrease of the polycyclic aromatic hydrocarbons (PAHs), contamination Risks from Fishing Products by Bilge wastewater	Basic Research Program	2-17-01-001-0063	25
Adsorptive removal of Phenolic compounds from Wastewater by using Date Palm based Agro-Waste Biomass	Basic Research Program	2-17-01-001-0064	26
Photoacoustic Imaging for personalized Photodynamic Therapy	Basic Research Program	2-17-01-001-0068	27
Genetic characterization and antimicrobial profiling of marine fungi of Saudi Arabia	Basic Research Program	2-17-01-001-0078	28
Feasibility study of the potential of nuclear desalination in Saudi Arabia	Basic Research Program	2-17-02-001-0056	29
Nano Filler Enhanced Date Palm Fibers Reinforced Polypropylene Hybrid Bio-Composites for dry climatic conditions	Basic Research Program	2-17-02-001-0061	30

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The prevalence, risk factors and thresholds of vitamin D and dietary calcium for the development of osteomalacia in Saudi Arabian adolescents: A population-based study	Basic Research Program	2-17-03-001-0012	31
Using Pharmacokinetics/Pharmacodynamics to Improve the Treatment of Multi-Drug Resistant Infections in Pediatric patients	Basic Research Program	2-17-03-001-0014	32
Developing an Experimental Testbed for Next Generation Photonics Enabled Sub-Terahertz Communications System	Basic Research Program	2-17-02-001-0009	33
Freeze dried kale to go, new superfood supplement to reduce metabolic risk in Saudi subjects	Basic Research Program	2-17-03-001-0031	34
Enhancement of ocular bioavailability of a novel oxazolidinone, tedizolid through chitosan nanoparticles: Formulation, characterization in vitro and in vivo evaluation	Basic Research Program	2-17-03-001-0035	35
Role of angiotensin (1-12) and chymase in the pathogenesis of diabetic retinopathy	Basic Research Program	2-17-03-001-0041	36
Optimizing Pitch Perception to Improve Fitting of Cochlear Implants	Basic Research Program	2-17-03-001-0047	37
Management of Fusarium diseases on certain commercial onion cultivars in Saudi Arabia	Basic Research Program	2-17-04-001-0017	38
Extraction, characterization and application of gums from wild grown Cactus and Acacia in the Kingdom of Saudi Arabia	Basic Research Program	2-17-04-001-0020	39
Prediction of Climate Change Impacts on Soil and Groundwater Resources in Arid Environment of AlBaha region, Saudi Arabia	Basic Research Program	2-17-04-001-0025	40
Characterizing and Ranking Major Microbial Food Safety Risks in Saudi Arabia	Basic Research Program	2-17-04-001-0027	41
Gastric response, energy expenditure and body composition changes after weight loss via bariatric surgery and lifestyle intervention	Basic Research Program	2-17-03-001-0060	42
Toward integrated management of tomato fusarium wilt under organic agriculture systems: The effect of grafting combined with soil solarization and fungal biocontrol	Basic Research Program	2-17-04-001-0034	43
The Effects of different levels and particle sizes of forage on productive performance of lambs fed total mixed ration diets.	Basic Research Program	2-17-04-001-0038	44
Feeding Sprouted Barley Fodder for Growing Lambs	Basic Research Program	2-17-04-001-0030	45
Morphological and molecular characterization of terrestrial molluscs from different regions and habitats in Saudi Arabia	Basic Research Program	2-17-04-001-0040	46
Molecular characterization, expression analysis, and RNAi knockdown of vitellogenin and its receptor genes in the almond moth, <i>Cadra cautella</i> (Walker)	Basic Research Program	2-17-04-001-0044	47
Next Generation SDM/Elastic Optical Network Simulation Platform for Optimized Network Planning, 3D Resource Allocation and Traffic Routing	Basic Research Program	2-17-02-001-0016	48
Innovative design of multi-layer self-nanoemulsifying pellets to enhance the oral bioavailability and stability of ramipril	Basic Research Program	2-17-03-001-0048	49
Economical Production of Anti-Camel IgY Conjugated for Diagnosis of Infectious Diseases Affecting Camels in Saudi Arabia	Basic Research Program	2-17-04-001-0007	50
Population genetics of <i>Xanthomonas citri</i> pv. <i>citri</i> causing Citrus Bacterial Canker in Saudi Arabia as a basis for disease management improvement	Basic Research Program	2-17-04-001-0006	51
Developing and characterization of epoxy-nanocoatings by incorporating nano-aluminum and ultrafine grained micaceous ferric oxide particles processed by mechanical milling	Basic Research Program	2-17-02-001-0023	52
Synthesis of N-Graphene Based Nanoscale Composite Anode Materials for High-Performance Lithium-Ion Batteries	Basic Research Program	2-17-02-001-0053	53
Epidemiological characteristics and genetic factors affecting the circulation and evolution of respiratory viruses in Saudi Arabia	Basic Research Program	2-17-03-001-0021	54
Assess the suitability of producing powder from date paste using Infrared and vacuum drying techniques	Basic Research Program	2-17-04-001-0015	55
Evaluation of the suitability of producing a high-fiber nutritious beverage from milk based date powder	Basic Research Program	2-17-04-001-0021	56
Development of Edible Chitosan Coatings using Natural Functional Ingredients for Preserving Quality Attributes of Fresh Barhi Dates and Cucumber	Basic Research Program	2-17-04-001-0031	57
Enabling a Secure and Smart Sensor-Cloud nrastructure for Remote Monitoring of Oil and Gas Pipeline Systems in KSA	Applied Research Program	3-17-03-001-0002	1
Role of HCN and Kv7 Potassium Channels in Chemotherapy Iduced Neuropathic Pain	Applied Research Program	3-17-05-001-0004	2

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Development of MERS-CoV Papain Like Protease (PLpro) inhibitors using High Throughput Screening Methodology	Applied Research Program	3-17-05-001-0010	3
To develop a safe, inexpensive and noninvasive biomarker of epileptogenesis after Traumatic Brain Injury	Applied Research Program	3-17-05-001-0020	4
Fractionation of Camel body fat and Identification, characterization and food product application of the resulting fractions	Applied Research Program	3-17-07-001-0012	5
Design of Tunable Broadband Conjugated-Polymer Laser	Applied Research Program	3-17-04-001-0002	6
Assessing beneficial bacteria in the indigenous honeybee (<i>Apis mellifera jemenitica</i>) of Saudi Arabia and their potential role in honey bee health	Applied Research Program	3-17-07-001-0007	7
Synthesis, efficacy and evaluation of novel rigid coumarin/quinoline hybrids for solid-state dye lasers	Applied Research Program	3-17-09-001-0006	8
Synthesizing and characterizing new hermoluminescent nanomaterials for the radiation doses measurement and other semiconductor applications	Applied Research Program	3-17-10-001-0003	9
Hand-based Biometrics Fusion and Bio-Cryptosystem Computation	Applied Research Program	3-17-09-001-0008	10
Computer-Aided Pronunciation Training System for Non-native Learners of the Arabic Language	Applied Research Program	3-17-09-001-0003	11
Role of HCN and Kv7 Potassium Channels in Chronic Diabetic Neuropathic Pain	Applied Research Program	3-17-05-001-0002	12
Efficient Utilization of Kingdom's Industrial Waste (Sulfur) For the Design and Synthesis of Layered Metal Sulfides Nanostructures for Energy Storage Devices	Applied Research Program	3-17-02-001-0005	13
Boosting the photoelectrochemical performance of heterojunction TiO ₂ nanotubes photoelectrodes by modification with oxygen evolution electrocatalyst	Applied Research Program	3-17-02-001-0011	14
Development of a novel functionally graded material through Friction Stir Welding and Processing	Applied Research Program	3-17-04-001-0003	15
Neurophysiological measures as end-point in multiple sclerosis clinical trials: the use of Transcranial Magnetic Stimulation.	Applied Research Program	3-17-05-001-0016	16
The Involvement of alpha7 nAChR on Obesity and Influences of Sex Differences	Applied Research Program	3-17-05-001-0051	17
Premarital screening of inherited blood disorder of KSA by portable laser spectrometer	Applied Research Program	3-17-05-001-0056	18
Inclusion of <i>Moringa oleifera</i> and <i>Moringa peregrina</i> leaves as non-conventional forage in pelleted total mixed diets for lambs and parent layer stock	Applied Research Program	3-17-07-001-0006	19
Black Phosphorus Saturable Absorber Utilizing Microfiber for Ultrafast Lasers	Applied Research Program	3-17-09-001-0007	20
Hybrid Integrated Sensing System for Sensitive Surveillance Applications.	Applied Research Program	3-17-09-001-0012	21
Monitoring and risk assessment of veterinary antibiotics residuals in manure, compost, and soil of livestock industry in Al-Kharj, Saudi Arabia	Applied Research Program	3-17-10-001-0001	22
Evaluating the significance of using metformin, aspirin, and major supplements in reducing cancer incidences in Saudi population.	Applied Research Program	3-17-05-001-0063	23
Establishing mass rearing of the predator, <i>Chrysoperla carnea</i> (Stephens) (Neuroptera: Chrysopidae) in Saudi Arabia and management of some agricultural mite and insect pests by its augmentative releases in the field and greenhouses.	Applied Research Program	3-17-07-001-0005	24

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Hydrologic Characteristics and Flood Risk Analysis for Major Watersheds in the Arabian Peninsula	Applied Research Program	3-17-01-001-0011	25
Cost Effectiveness of Day-Surgery Clinical Pathway Protocol on Patients with Appendicitis	Applied Research Program	3-17-05-001-0062	26
Synthesis of novel amino-rich mesoporous silica nanoparticles using anionic surfactant and double and triple co-structure directing agent systems for removal of radio-active and heavy metal cations	Applied Research Program	3-17-01-001-0003	27
Towards Brain Controlled Next Generation Prosthesis	Targeted Research Program	5-18-03-001-0015	1
Physical therapy role in health and wellness promotion with people with musculoskeletal disabilities in Saudi Arabia	Targeted Research Program	5-18-03-001-0001	2
Saudi Sign Language Translation Companion System	Targeted Research Program	5-18-03-001-0003	3
Braille self-learning system for Arab users	Targeted Research Program	5-18-03-001-0004	4
Toward a Portable Patient-Operated Electric Muscle Stimulator	Targeted Research Program	5-18-03-001-0005	5
The effectiveness of cognitive behavioral therapy to reduce anxiety among female children with Attention Deficient and Hyperactivity Disorders (ADHD)	Targeted Research Program	5-18-03-001-0006	6
Cloud-Based Privacy Protected Computer Aided Diagnosis System for Routine Breast Cancer Screening	Targeted Research Program	5-18-03-001-0007	7
Feeling of loneliness and its relationship with social skills among children with Asperger Disorder in Saudi Arabia	Targeted Research Program	5-18-03-001-0009	8
Whole genome sequencing using PhenomeNET Variant Predictor (PVP) system in evaluation of genetic diseases	Targeted Research Program	5-18-03-001-0010	9
Reducing disability caused by chronic Low Back Pain using virtual reality	Targeted Research Program	5-18-03-001-0012	10
Social support and its relationship with psychological stress and self-efficacy among mothers of girls with autism disorders and with ADHD	Targeted Research Program	5-18-03-001-0017	11
Standardization and Diagnostic Utility of Raven's Coloured Progressive Matrices Test of Intelligence in Saudi children aged 5-11 years in Riyadh City	Targeted Research Program	5-18-03-001-0018	12
Development of a precision-based eco-friendly chemical control strategy against red palm weevil, <i>Rhynchophorus ferrugineus</i> : a highly damaging pest of the date palm trees	Targeted Research Program	5-17-02-001-0005	13