

### Selected Research Projects and Grants (2011-2014)

Agency	Research Title	Funds (SAR)
KFU-Deanship of Scientific Affairs (DSR)	Study the impact of DG placement by using evolutionary algorithms	141,000
KFU- (DSR)	Study of Smart Grid Capacity and Energy Savings in The Kingdom of Saudi Arabia	74,000
KFU- (DSR)	Development of Novel Anode nanocatalysts for Formic Acid Fuel Cells (DFACs)	
College of Engineering KFU	Design and Control of Ethylene Oxide Process	
College of Engineering KFU	Design of an off Grid Solar Photovoltaic System at King Faisal University	10,000
College of Engineering KFU	Design of a grid connected 10 kW PV system at KFU	200,000
KFU- (DSR)	Self-Controlled Hyperthermia Characteristics of ZnGdFe Nanoparticles	99,000
KFU- (DSR)	The Appropriate Alternatives for Energy Saving in (Existing) Buildings Air-Conditioning in Hot Arid Regions via Decision-Making Technique	43,650
KACST	Development Of Energy Efficient Nanoscale Coatings For Optics/Glass Industry	1,957,000
KFU-DSR	Enhancement of transient stability limit for proposed inter-tie east & south region of Saudi electricity company	178,960
KFU-DSR	Energy Conservation Strategies for Heat Dissipation and HVAC Systems in KFU Buildings	139,900
KFU-DSR	Development of new prediction models to evaluate mechanical properties of concrete incorporating temperature effects	120,800
KFU-DSR	Improvement of Indoor air quality using Locally produced activated carbon filter	10,000
KFU-DSR	Historical Significance of Strategic Location of The Eastern Region	14,000
KFU-DSR	A Decision Making Model for Selecting the GSM Mobile Phone Antenna in the Design Phase to Increase overall Performance	47,000
KFU-DSR	Utilization of Supplementary Energy Sources for Cooling in Hot Arid Regions via Decision-Making Model	46,000
KFU-DSR	The Most Appropriate Corrective Action for Energy Saving In Existing Buildings Air Conditioning in Hot Arid Regions	46,000

KFU-DSR	Choice of Dielectric Substrate Material Used in Microwave and RF Circuits via Decision-Making Supportive Model	43,350
NSTIP	Nano electrocatalysts development for formic acid fuel cells	
KFU-DSR	Multi-input Multi-output Technique to Mitigate the Negative Effects of Cochannel Interference in Wireless Cellular Systems	46,000
KFU-DSR	Enhancement of Transient Stability Limit for Proposed Inter-tie East & South Region of Saudi Electricity Company	148,960
KFU-DSR	Energy Conservation Strategies for Heat Dissipation and HVAC Systems in KFU Buildings	126,000
<b>TOTAL</b>		<b>3,491,620</b>

#### Undergraduate Research

<b>Agency</b>	<b>Research Title</b>	<b>Funds (SAR)</b>
College of Engineering KFU	Design and Control of Ethylene Oxide Process	
College of Engineering KFU	Design of an off Grid Solar Photovoltaic System at King Faisal University	10,000