

رؤية  
VISION  
2030  
المملكة العربية السعودية  
KINGDOM OF SAUDI ARABIA



**VSESA**  
Applications and Challenges

آفاق الطاقة الشمسية  
في المملكة العربية السعودية  
التطبيقات والتحديات

Conference Description

Organized by

**Qassim University**  
College of Engineering  
جامعة القصيم  
كلية الهندسة



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## Conference



### **Title**

Vision of Solar Energy in the Kingdom of Saudi Arabia: Applications and Challenges



### **Place**

Qassim University



### **Organized by**

College of Engineering



### **Language**

Arabic - English



### **Date**

9 - 10 December 2020

- The conference will be conducted in line with Vision 2030 of the Kingdom of Saudi Arabia, which is designed to support the national economy and to reduce dependency on the oil economy.
- It will generate awareness regarding the importance of solar energy as an abundant source of renewable energy in Saudi Arabia.
- The conference will cover the current state and advances in solar energy applications and technologies.
- It also will emphasize the solar energy applications in various sectors including Academia, Government and Industry in Saudi Arabia.

**Why to be held?**

## Objectives

This conference aims to foster the development of sustainable solar energy technologies to support the Kingdom Vision 2030. It aims to bring together leading academics, researchers, and industry experts from all over the world, for sustainable development of solar energy in Saudi Arabia, to share their results and experiences.

### Clear Vision



Contribute to the goal of the Kingdom's vision 2030 to shift from an oil-based economy.

### Rational Cost



Economic case evaluation of investing in solar energy at local, regional and international levels.

### Rewarded Opportunities



Inviting top professionals, market leaders and experts in solar energy to share their research results and expertise.

### Attractive Investment



Identification of attractive opportunities for investment in the solar energy industry in the Kingdom of Saudi Arabia.

### Ambitious Investment



Study of investment impediments in the solar energy industry in Saudi Arabia.

### Interconnected Team



Link scientific research and studies in the area of solar energy in Saudi universities with development requirements to meet national challenges in the area of solar energy.

## First Track



### **Electric Power Generation using Solar Energy**

Research papers in this track covers electric power generation from photovoltaic (PV) cells and concentrating PV, thermal solar power sources, new solar technologies, sun tracking technologies, cleaning and maintenance technologies, integrating solar power generation systems and case studies in electrical power using solar energy especially in Saudi Arabia.

## Second Track



### **Solar Energy Storage**

This track covers papers in areas of solar energy storage technologies such as grid integration, battery energy storage and alternative storage technologies. It also covers storage operations including monitoring and controls, safety of storage systems, economics of storage systems, and relevant case studies.

## Third Track



### **Water Desalination using Solar Energy**

Research papers in this track will cover e direct and indirect solar desalination technologies; thermal distillation processes, membrane technology, and other processes like freezing and ion exchange. Other topics of interest may include the economics of solar desalination plants and case studies in Saudi Arabia and other countries.

## Fourth Track

### Solar Heating and Cooling Applications

Papers in this track will cover solar heating applications for domestic and industrial processes. These also include solar cooling using PV, solar district cooling, optimization of heating and cooling systems and efficiency improvements to enable solar driven applications.



## Fifth Track

### Passive and Active Applications of Solar Energy to Buildings

This track invites papers in solar passive architecture and the integration of solar energy into urban planning. Active building solar applications includes but not limited to Building Integrated Photovoltaic (BIPV), solar windows, solar water heaters, and low energy and net-zero energy buildings including relevant case studies.



## Sixth Track

### Solar for Transportation

Research papers in this track will cover the area of solar-powered vehicles, solar energy utilization in public transport, solar-powered flight. Other topics include transportation infrastructure integrated with solar energy, solar electric vehicle charging stations, and auxiliary power systems in the commercial transport industry.



## Seventh Track

### Solar Energy Management in Saudi Arabia

This track seeks papers in management and administration of solar energy in the Kingdom of Saudi Arabia, including but not limited to the following items.



**Economics:** Investing in solar energy including feasibility and sound business models covering the socio-economic impacts.

**Policies:** Developing strategies to enable the smooth implementation of solar energy and the engagement enabling cooperation nationally and internationally and implementation action plans.

**Finance:** Government support funding schemes, and venture capital.

**Investment:** Attracting private sector investments and designing efficient policies to support solar technology deployment.



# Important Dates

<b>Abstract submission deadline</b>	31 October 2019
<b>Notification of abstracts acceptance</b>	15 November 2019
<b>Early registration deadline</b>	1 December 2019
<b>Full papers submission deadline</b>	3 January 2020
<b>Notification of full papers acceptance</b>	1 February 2020
<b>Conference date</b>	9 - 10 December 2020



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## Registration and Awards

### **Registration for paper presenters**

The conference organizing committee offers participants who submit papers free registration which includes dinners, accommodation, and the scheduled tour.

### **Registration for participants**

There are no registration fees to attend the conference for paper presenters. However, other participants should pay 750 Saudi Riyal (200 US Dollars) to compensate dinners, accommodation, and the scheduled tour during the conference duration.

### **Top three best selected papers will be awarded as follows:**

The 1st prize= 5,000 Saudi Riyal

The 2nd prize= 3,000 Saudi Riyal

The 3rd prize= 2,000 Saudi Riyal

## Committees

### General Supervisor

Prof. Abdulrahman AlDawood  
The Rector of Qassim University

## Organizing Committee

### Committee Chair

Vice Rector for Educational Affairs

### Members

Dean of College of Engineering  
Dean of Student Affairs  
General Supervisor of Public  
Relations Department

General Supervisor of Information and  
Communication Center  
Director of Transportation Department  
Director of University Security Department  
Mr. Ahmed Abdulaziz Almalikh

## Scientific Committee

### Committee Chair

Dr. Meshal I. Almoshaogeh

### Members

Dr. Sulyman Alyhiya  
Dr. Abdulrahman Almarshoud  
Dr. Radwan Almasri

Dr. Hany Ammar  
Dr. Abdulrahman Alrobaian  
Dr. Ahmed Alshwairekh

### **Address**



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### **Website**

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