



Office of the Principal
Hassan Khoyihami Memorial Degree College
Bandipora-193502
Kashmir J&K



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No.: HKM/GDCB/20/1191

Dated: 16/08/2020

Sub.: An international online Lecture/Webinar on “Nanotechnology for Clean Energy Applications: Opportunities and Challenges” live from the Khalifa University, Abu Dhabi, UAE.

Brief Report

The HKM-Degree College Bandipora, organized an international webinar for Students, Research Scholars and Faculty members entitled “Nanotechnology for Clean Energy Applications: Opportunities and Challenges” on Sunday 16th August 2020 from 4 to 5.30 PM. In this webinar lecture, the Dr Ahsan-ul Haq Qureshi gave introduction to Nanotechnology and history of research in Nanomaterials. He spoke about how Nanostructure science is revolutionizing various disciplines of science and technology and Nanostructured materials and nanoparticles have been emerging as the necessary ingredients for electro-optical applications for enhancement of device performance. He threw light on their applications in the energy sector and discussed how nanoscale material has made a difference in various areas of engineering and technology. He spoke widely about the transportation, storage and consumption of energy in more efficient ways and its future prospects. The speaker shared various research activities, vedios, slides from his research group on the applications of Nanotechnology for the production of Clean Energy.

The entire session was quite interactive and Students and research scholars of various institutions asked number of questions. Dr Ahsan-ul Haq has worked in King Fahd University of Petroleum & Minerals, Dharaan Saudi Arabia for a number of years before joining Khalifa University, Abu Dhabi. He has published 90 research papers in the field of nanotechnology in top peer reviewed international journals of repute and attended various conferences in different parts of the world and presented papers and talks on the subject.

While welcoming the guest speaker and the participations, earlier the Principal of the college Dr. Mohd Amin Malik interacted with the students, faculty and scholars and spoke about the growing demands of energy use in present world and how to cope with the situation. He threw light on the energy crises situation and discussed the use and benefits of renewable energy. He outlined the general perspective on nano-science and nanotechnology. He gave historical background of nanotechnology and how it is being used in the energy sector. The program was organized by Dr Nasrul Islam and Dr Sheikul Ashraf and the session concluded with a vote of thanks by Prof Parvaz Ahmad Malla.

Principal
HKM Degree College Bandipora

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1. Office Record.



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Brochure

About the Institution

Hassan Khoyihami Memorial Degree College named after Hassan Khoyihami - a great native historian and a poet, was established in the year 2005. This College is approved by the University Grants Commission (UGC) and is affiliated to Kashmir University. It offers courses in areas as diverse as Language, Social Science, Commerce, Science and Computer Applications in 22-subject combinations leading to 6-semester BA/BSc/BCom degree.

Cradled in the lap of nature, the College is situated on the top of a hillock, an idyllic place surrounded by a majestic bulwark of mountains, the facade gives a panoramic view of the famous Wular Lake-the largest fresh water lake in Asia. The College is equipped with state of the art laboratories, computer facilities, library and information centre and round the clock Internet facilities. The college encourages and provides opportunities to the students to take part in co-curricular/extra-curricular activities to explore their capabilities and areas of interest in all-round development of their personality.

Paton

Dr. Mohamad Amin Malik
Principal
Hassan Khoyihami Memorial
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Webinar abstract

Enormous global industrial revolution has resulted in an upsurge of atmospheric amount of carbon dioxide (CO₂) due to excessive use of fossil fuels. This immense increase ensued despite the uptake of large share of emission by various naturally existing "sinks" encompassed in carbon cycle. Emphasis is given to clean energy in recent past due to above mentioned environmental challenges. Nanotechnology provides opportunities to resolve clean energy production and related challenges. Researches globally solved various problems once considered impossible with innovative approaches. New materials with fascinating properties are key to clean energy applications. In 2019, Nobel prize was awarded in chemistry to lithium ion batteries (LIBs) for portable electronics revolution. There is huge scope of nanotechnology related research in energy generation and storage. This talk will be focused on various dimensions of nonmaterial's development to address alternative energy challenges.

Speaker:

Ahsan Ul Haq Qurashi, PhD
Associate Professor,
Department of Chemistry,
Khalifa University, Abu Dhabi
UAE.



Date & Time:

August 16th, 2020 Sunday (4:00 pm to 5pm) (IST)

Registration link:

<https://forms.gle/M4WRDnbYcEwZpMYw7>

Webinar will be delivered through Zoom App Platform.
Meeting ID and Password will be shared through
email/WhatsApp before one hour of the start of Lecture

Contact at : chemistry.gdcbpr@gmail.com
WhatsApp : 9419345723

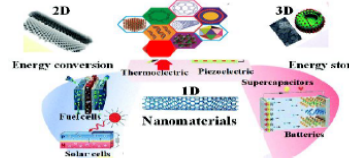
International Webinar

Live from

The Khalifa University, Abu Dhabi, UAE

on

"Nanotechnology for Clean Energy Applications:
Opportunities and Challenges"

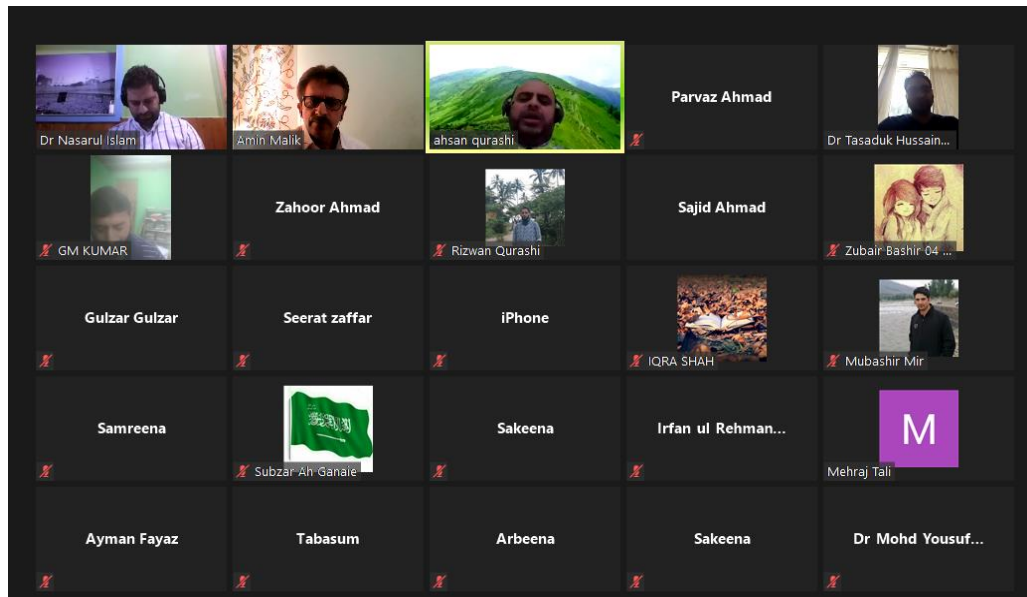


Organized By



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Our lab.....



ENERGY HARVESTING and Env. Sensing LAB. (EHESL) 55



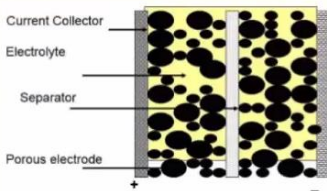

Supercapacitors

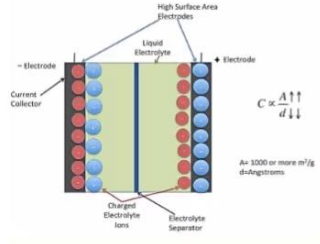



- Energy is stored in ultracapacitor by polarizing the electrolytic solution.
- The charges are separated via electrode-electrolyte interface.

- A **supercapacitor (SC)** is a high capacity capacitor with capacitance values much higher than other capacitors (but lower voltage limits) that bridge the gap between electrolytic capacitors and rechargeable batteries.

- Ultracapacitor consist of a porous electrode
- Electrolyte
- A current collector (metal plates)
- A separator, which separates, positive and negative placed is called separator







Schreen
Ayman Fayaz
Dr Mohd Yousuf...
Ishrat Dar
RUMESSA Moha...
Tabasum

Remaining Meeting Time: 04:45

Nanotechnology in Communications

decorative nights
LED illuminated side grates for dim lighting







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Dr Ahsan-ul Haq Qureshi