Program

Nanotechnology for Development of Advanced Applications: Solar and Energy Devices

September 22-24, 2014,

Mimar Kemaleddin Conference Hall, Ankara, Turkey.

September 22

9:00 am – 10:30 am **Opening**

- Remarks

Keynote speeches

- Nanotechnology for advanced energy harvest and storage, and lighting *(Munir Nayfeh – U of Illinois, NanoSi President*)

10:30 am – 11:00 am **Coffee Break**

11:00 am – 1:00 pm **New concepts and architectures for solar cells**

- Perspectives of application of Layer by Layer assembly nanocomposite films for solar cell *(Dmitry Gorin, Saratov State University, Saratov, Russian Federation)*
- Improving Solar Cell Efficiency through Hydrogen Bonding: Effects on Active Layer Morphology *(Taner Aytun, Northwestern University, Chicago, USA)*
- Advanced concepts of hetrostructure and quantum dot solar cells-Experiment and modeling *(Ammar Nayfeh, Masdar Institute of Science and Technology, Abu Dhabi)*
- Polyaniline/Si Nanoparticle Nanocapsules for thin film solar cells *(Noha Elhalawany, NRC, Cairo, Egypt)*

1:00 pm – 2:00 pm **Lunch**

2:00 pm – 3:00 pm **Converting heat and light into electricity**

- The use of silicon nanowire arrays for the conversion of thermal energy to electricity *(Hakan Ates and James Malloy, University of Illinois - Gazi University, and University of Illinois)*
- Advanced Si-Ge near infrared photodetectors *(Ali Okay, Bilkent University)*

3:00 pm – 3:30 pm **Coffee Break**

3:30 pm – 5:00 pm **Nanotechnology and Education**

- Journalism and Science Popularization *(Mohammad Aref, Science Writer of Alkhaleeg Journal (UAE), London, UK)*
- The role of the youth in the popularization of science and technology *(Salman Alotaibi, Arab Society for Science, Kuwait)*

- Nanotechnology education is made easy, demonstration of easy experiments and methods for science teacher and students (*Munir Nayfeh, University of Illinois)*

5:00 pm – 6:00 pm **Poster Presentations and Coffee**
7:00 pm **Dinner**

September 23,
9:00 am – 10:30 am Nanoparticle material and films

9:00 am – 9:30 am **Keynote speech**
- Novel energy harvest *(Eyad Abed, NSF, Washington DC)*

9:30 am – 10:30 am
- Synthesis of luminescent copper nanoparticles using electrochemical deposition (*Laila Abuhassan, University of Jordan)*
- Synthesis and characterizations of thin films for advanced applications *(Semra Ide, Hacetepe University, Ankara, Turkey)*
- Enhancement of photoelectochemical characteristics of CdS thin film electrodes *(Hikmat Hilal, Najah University, Nablus, Palestine)*

10:30 am – 11:00 am **Coffee Break**

11:00 am – 1:00pm **Nanomaterials and medical applications and Health and safety**
- Nanomaterials and their medical and health effects *(Bulent Aydogan, U of Chicago)*
- Nano wires and MEMS for sensing, bio and energy *(Saif Taher, UIUC)*
- Photo-catalytic activity and UV-shielding of silica-coated Titania nano particles *(Mohamed Alsalhi, KSU, Riyadh, Saudi Arabia)*
- Nanotechnology for bio and environmental applications *(Bayram Unal, Fatih University, Istanbul, Turkey)*

1:00 pm – 2:00 pm **Lunch**

2:00 pm – 3:00 pm **International collaborations and partnerships**
- International partnerships and collaborations in energy research *(Irfan Ahmad and Ali Mirarefi, UIUC and Singapore)*
- Expo 2017 for renewable green energy *(Al-Farabi Ydrishev, National Center for Technology Foresight, Astana, Kazakhstan)*

3:00 pm – 4:00 pm **Poster session and coffee break**

4:00 pm – 6:00 pm	**Symposium on catalyzing new international partnerships** (Bulent Aydogan, Turgay Tekinay) - The role of national science Foundations: NSF, Tubitak, US-Turkey Bilateral Agreements, EU and NATO sponsored projects and workshops - NSF sponsored active MENEA Collaboration - Nanotechnology regional/international center - Drafting proposals for collaboration - Recommendations and Closure

September 24

8:30 am – 9:30 am	Evaluation and Brainstorming Session (Gazi University Gölbaşı Campus)

September 25	**Excursion to Airport and Departure**