



# TAIEX Workshop on GEANT, H2020 and European Synchrotron Sources

الورشة الأردنية العاشرة لمستخدمي مركز السنكروترون

organised in co-operation with  
Jordan Atomic Energy Commission

Venue:

**Days Inn Hotel & Suites**

Amman - Jordan

12 – 13 August 2017

Beneficiary:

**Jordan**

ETT 64406

### **Aim of the workshop:**

The workshop will provide EU best practice and cover various disciplines of applied synchrotron radiation research in support of regional research and technical development to the Jordanian user community of SESAME (Synchrotron-light for Experimental Science and Applications in the Middle East). The workshop will bring together EU experts from well-established synchrotrons and current and prospective synchrotron users from Jordan to exchange knowledge, ideas, and to discuss ongoing and new collaborative research efforts within the community in the various fields of synchrotron usage.

The scientific aspects of the workshop will address the current state of SESAME Synchrotrons, research opportunities and applications using the X-ray Absorption Fine Structure (XAFS) / X-ray Fluorescence Spectroscopy (XRF) beamlines, the Infra-Red (IR) beamline and the Material Science (MS) beamline as well as the SESAME Computational Facilities and Links. The workshop will raise awareness of the need to increase regional research and technical development with the support of education networks and high speed connectivity.

## Day 1: Saturday 12 August 2017

<b>09:00 - 10:00</b>	<b>Registration of participants</b>
<b>10:00 - 10:30</b>	<p><b>Opening Session (Chair: Dr. Khalifeh ABUSALEEM, Commissioner, JAEC)</b></p> <p>Dr. Khaled <b>TOUKAN</b> , Jordan Atomic Energy Commission (JAEC) and SESAME          Dr. Abdul-Halim <b>WRIEKAT</b>, Jordanian National Committees for SESAME          Mr. Yousef <b>TORMAN</b>, The Pan Arab Research and Education Network (ASREN)</p>
<b>10:30 - 11:00</b>	Coffee Break
<b>11:00 - 13:00</b>	<b>General Session (Chair: Dr. Yasser KHALIL, Administrative Director, SESAME)</b>
11:00 - 11:15	Mr. Karl <b>MEYER</b> , The Pan European Academic and Research Network (GEANT) <i>(via Skype video call)</i>
11:15 - 12:00	The OPEN-SESAME project - EU's H2020 Framework Programme Dr. Kirsi <b>LORENTZ</b> , The Cyprus Institute
12:00 - 12:20	SESAME - IT Infrastructure, current status and future needs Mr. Salman <b>MATALGAH</b> , SESAME
12:20 - 13:00	SESAME "VI-SEEM Project" - funded by EU's Horizon 2020 Research and Innovation Programme Dr. Andreas <b>ATHENODOROU</b> , The Cyprus Institute
<b>13:00 - 14:00</b>	Lunch break
<b>14:00 - 16:00</b>	<b>Synchrotron X-Ray Session (Chair: Dr. Feras AFANEH, Hashemite University)</b>
14:00 - 14:40	Current status of SESAME, machines, beamlines and training opportunities Dr. Giorgio <b>PAOLUCCI</b> , SESAME
14:40 - 15: 20	Synchrotron X-ray, research opportunities and applications Dr. Messaoud <b>HARFOUCHE</b> , X-Ray Beam line scientist
15:20 - 15:40	The application of Synchrotron Based XRF (XANES) in determining the oxidation states of Manganese (Mn) and Iron (Fe) intergrowth in Middle Cambrian shallow manganese ore minerals - Southern Jordan Dr. Tayel <b>EL-HASAN</b> , Mutah University
15:40 - 16:00	Using Microbeam Synchrotron X-ray Scattering to Investigate the Nanostructure of Biological Skeketons" Dr. Ali <b>AI-SAWALMEH</b> , The University of Jordan
<b>16:00 - 16:30</b>	Coffee Break
<b>16:30 – 17:45</b>	<b>Building of research groups (Chair: Dr. Abdul-Halim WRIEKAT, Commissioner, JAEC)</b>
16:30 - 16:45	SESAME Jordanian National Committees - Dr. Allayth <b>ALDRABEE</b> , JAEC
16:45 - 17:45	Issues for building research groups (Participants - Users - Groups - proposals )

## Day 2: Sunday 13 August 2017

<b>09:00 – 11:00</b>	<b>IR Spectroscopy Session (Chair: Dr. Solhe ALSHAHATEET, President of Aqaba University of Technology)</b>
09:00 - 09:50	Infrared micro-spectroscopy: a bio-analytical tool for understanding and improving radiotherapy Dr. Immaculada <b>MARTINEZ-ROVIRA</b> , Autonomous University of Barcelona
09:50 - 10:40	Infrared micro-spectroscopy using synchrotron light source, Applications on biochemistry, microanalysis, cell biology, biomedical diagnostics, material and environmental sciences. Dr. Ibraheem <b>YOUSEF</b> , ALBA Synchrotron, Spain
10:40 - 11:00	Elucidation of penetration enhancement mechanism of Emu oil using Fourier Transform Infrared (FTIR) micro spectroscopy at EMIRA laboratory of SESAME synchrotron Local Users Dr. Randan <b>MANSOUR</b>
<b>11:00 - 11:30</b>	Coffee Break
<b>11:30 - 13:30</b>	<b>Materials Science Session (Chair: Dr. Tayel EL-HASAN, Director of Prince Faisal Centre for Dead Sea, Environmental and Energy Research, Mutah University)</b>
11:30 - 12:30	The role x-ray optics in the synchrotron beamlines construction and their successes” Beamline Optic Scientist: Dr. Hossein <b>KHOROABADI</b> , SESAME
12:30 - 13:00	3D momentum imaging of ultrafast dynamics in isolated molecules and molecular clusters using COLTRIMS reaction microscope Dr. Feras <b>AFANEH</b> , Hashemite University
<b>13:00 - 14:00</b>	Lunch break
<b>14:00 – 14:30</b>	<b>Local Users Presentations (Chair: Dr. Adi SAID, Royal Scientific Society)</b>
14:00 – 14:30	Synthesis and characterizations of 1,2,3-triazole containing Metal Organic Framework (MOF), Determination of Crystal Structure at Advanced Light Source (ALC) at Lawrence Berkeley National Laboratory (LBL) Dr. Dassan <b>JARADAT</b> , Al-Balqa Applied University
<b>14:30 – 15:30</b>	<b>Closing Session - Final Conclusions and Recommendations (Dr. WRIEKAT, Dr. PAOLUCCI and Dr. LORENTZ)</b>

This meeting is being organised by the  
***Technical Assistance Information Exchange Instrument  
of the European Commission***

<http://ec.europa.eu/taix>



TAIEX on Twitter: [#EUTaix](https://twitter.com/EUTaix)  
[NEAR-TAIX@ec.europa.eu](mailto:NEAR-TAIX@ec.europa.eu); Telephone: +32-2-296 73 07