

# School on Design, Fabrication and Application of Devices for Energy Production



**13 - 16 May 2019**  
**Trieste, Italy**

Further information:  
<http://indico.ictp.it/event/8657/>  
[smr3290@ictp.it](mailto:smr3290@ictp.it)

The school will focus on sunlight conversion to energy and chemical fuels, and on the ethical and sustainable use of natural resources. It will be a forum for discussion on new science and technology integration to ensure a sustainable future for people and planet.

## Description:

Sustainable development for people and planet is based on clean forms of energy and efficient and affordable recycling of resources, including 'endangered elements'. The energy transition from fossil fuels to renewables is ongoing, but it is a slow and complex process that needs to be accelerated to avoid irreversible ecological damages from global warming. Among other renewable energy sources, conversion of solar light is central, giving access not only to electricity but also to chemical fuels. However, a change of paradigm in science, technology and education is required to speed up the process and to achieve a real sustainable progress. The school aims to boost this change, integrating different interdisciplinary approaches to the production of energy and chemicals from sunlight and to identify solutions that are ethical, affordable and sustainable for the use of natural resources.

## Topics:

- Energy production and sustainability of energy production
- Artificial photosynthesis
- Bio-inspired systems for energy conversion
- Photonics for zero-energy buildings
- Graphene/2D materials for photovoltaics
- Laser-induced functionalization and nanofabrication
- Elements on stress: war, sustainability and alternative solutions

## Directors:

**A. KRIEF**  
International Organization for Chemical Sciences in Development  
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**R. RAMPONI**  
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**S. EATON**  
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## Local Organizer:

**J. NIEMELA, ICTP**

## Workshop Speakers:

**L. AMIRAV**  
School of Chemistry, Technion, Israel  
**A. BONOLI**  
Dept of Engineering, Univ. Bologna, Italy  
**G. CERULLO**  
Physics Dept, Politecnico di Milano, Italy  
**G. FARINOLA**  
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Physics Dept, University of Namur, Belgium  
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**J. YANS**  
Geology Dept, University of Namur, Belgium

## How to apply:

Online application:  
<http://indico.ictp.it/event/8657/>

Female scientists are encouraged to apply.

## Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

## Deadline:

**17 March 2019**



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