The School will cover the fundamentals on NanoEnergy and NanoSystems, ranging from basic theory to devices and applications.

The School will comprise 6 Lectures and 2 Round-Tables (see the Program below).

Taking into account the cross-disciplinary nature of the audience, each Lecture is divided into two parts:
- Tutorial
- Seminar

The Tutorials will introduce all the key concepts needed during the Seminars and will be easily followed by anyone who is familiar with the general math, physics and chemistry taught in B.Sc. Engineering/Physics/Chemistry.

The Round Tables will offer advice from leading experts on how to perform effective research and how to bring innovative devices on the market.

Who should attend? The School is ideal for anyone with an interest in NanoEnergy and NanoSystems, including students, researchers, professors.

Pre-registration is open (falconi@eln.uniroma2.it). Limited places available only!

School Program

First Day (June 13 – Monday)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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<tbody>
<tr>
<td>9:00 – 10.30</td>
<td>Philip Kim</td>
<td>Materials in 2-dimension and beyond: 10 years after graphene</td>
</tr>
<tr>
<td>11:00 – 12:30</td>
<td>Christian Falconi</td>
<td>Electronic instrumentation for NanoEnergy and NanoSystems</td>
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<tr>
<td>13:00</td>
<td>Lunch</td>
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<tr>
<td>14:00 – 15:30</td>
<td>Zhong Lin Wang</td>
<td>Introduction of nanogenerators</td>
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<tr>
<td>16:00 – 17:30</td>
<td>Sang-Woo Kim</td>
<td>New Energy Harvesting with Nanogenerators for Self-Powering Small Electronics</td>
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</table>
Second day (June 14 – Tuesday)

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>9:00 – 10:30</td>
<td>Zhong Lin Wang</td>
<td>Introduction of piezotronics</td>
</tr>
<tr>
<td>11:00 – 12:30</td>
<td>Luigi Occhipinti</td>
<td>How to design and manufacture reliable and cost-effective flexible and disposable electronic devices</td>
</tr>
<tr>
<td>13:00</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>14:00 – 15:30</td>
<td>Max Migliorato</td>
<td>Theory of Piezoelectricity in Polar Semiconductors</td>
</tr>
<tr>
<td>16:00 – 17:00</td>
<td>Round table I</td>
<td>How to make effective research on NanoEnergy and NanoSystems</td>
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<td></td>
<td>(Introduction: Prof. Zhong Lin Wang; moderator: Prof. Arnaldo D'Amico)</td>
</tr>
<tr>
<td>17:00 – 18:00</td>
<td>Round table II</td>
<td>How to bring innovative devices on the market</td>
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<tr>
<td></td>
<td></td>
<td>(Introduction: Dr. Luigi Occhipinti; moderator: Prof. Arnaldo D'Amico)</td>
</tr>
</tbody>
</table>

The teachers

**Arnaldo D’Amico**

Introduction to questions and answers (for all the lectures)

Moderator for the Round Tables

*University of Rome Tor Vergata (Professor Emeritus)*
Zhong Lin Wang

Introduction of nanogenerators

Introduction of piezotronics

Introduction to Round Table I

Georgia Institute of Technology, USA
Beijing Institute of Nanoenergy and Nanosystem, Chinese Academy of Sciences, China
http://www.nanoscience.gatech.edu/

Luigi G. Occhipinti

How to design and manufacture reliable and cost-effective flexible and disposable electronic devices

Introduction to Round Table II

University of Cambridge, United Kingdom
www.largeareaelectronics.org

Sang-Woo Kim

New Energy Harvesting with Nanogenerators for Self-Powering Small Electronics

SKKU, Republic of Korea
http://nesel.skku.edu
Philip Kim
Materials in 2-dimension and beyond: 10 years after graphene
Harvard University, USA
http://users.physics.harvard.edu/~pkim/

Max Migliorato
Theory of Piezoelectricity in Polar Semiconductors
University of Manchester
http://www.manchester.ac.uk/research/max.migliorato/

Christian Falconi
Electronic measurements for NanoEnergy and NanoSystems
University of Rome Tor Vergata – IDASC CNR
http://next.uniroma2.it/