

COST Action CA19118 - High-performance Carbon-based composites with Smart properties for Advanced Sensing Applications (EsSENce)

3rd Training School: Smart sensing applications

Empa, Swiss Federal Laboratories for Materials Science and Technology,
Überlandstrasse 129, 8600 Dübendorf, Switzerland, & online streaming,
June 05–08, 2023

Monday, June 5th, 2023 | Registration

- Venue: NEST, Empa, Überlandstrasse 129, 8600 Dübendorf, Switzerland
- Link to the live streaming (*registration required*)

<i>Time</i>	<i>Type</i>	<i>Title and Trainer</i>
15:00 – 16:00		<i>Check in and registration Empa: Nest Building ground floor.</i>
16:00 – 17:30		Lab visit Frank Clemens (Empa, Switzerland)
17:30 - 22:00		Social event (own cost contribution ca. 50 CHF) Visit of Zurich Dinner

Tuesday, June 6th, 2023 | Soft sensors based on carbon nanomaterials

- Venue: Akademie, Empa, Überlandstrasse 129, 8600 Dübendorf, Switzerland
- Link to the live streaming (*registration required*):
<https://attendee.gotowebinar.com/register/????>

<i>Time</i>	<i>Type</i>	<i>Title and Trainer</i>
09:00 – 09:30		<i>Welcome coffee</i>
09:30 – 09:45		Welcome and Introduction to EsSENce COST Action Evangelia Pavlatou (NTUA, Greece)
09:45 – 10:00	L & LR	Introduction to the 3rd Training School Frank Clemens (Empa, Switzerland) Ludwig Cardon (UGent, Belgium)
10:00 – 11:00	L	Thermoplastic composites for vapor, liquid and strain sensing Petra Pötschke (IPF Dresden, Germany)
11:00 - 12:00	L	Thermoplastic elastomer sensors for mechano-, thermos and chemoreceptive sensor development Frank Clemens (Empa, Dübendorf)

12:00 – 13:30		<i>Lunch break and networking</i>
13:30 – 14:30		Integrated optic fibre sensors for structural health monitoring Jan Vcelak (Czech Technical University in Prague – UCEEB, Czech Republic, InnoRenew CoE - Slovenia)
14:30 – 15:30	L	Textile-based optic sensors for healthcare applications Sara Fateixa (CICECO, University of Aveiro, Portugal)
15:30 – 16:00		<i>Coffee break</i>
16:00 – 17:00	L	Synthesis of nanocomposites for wearable devices and soft robotics Vitor Sencadas (CICECO, University of Aveiro, Portugal)
17:00 – 18:00	L	Incorporating CNTs in polymer surfaces in the context of smart sensing Wolfgang Bacsa (CEMES-CNRS, Univ. of Toulouse, France)

Wednesday, June 7th, 2023 | Soft sensors based on carbon nanomaterials

- Venue: Akademie, Empa, Überlandstrasse 129, 8600 Dübendorf, Switzerland
- Link to the live streaming (*registration required*)

<i>Time</i>	<i>Type</i>	<i>Title and Trainer</i>
09:00 – 10:00	L	Sensor characterization Antonia Georgopoulou (Empa, Switzerland)
10:00 – 11:00	P	Group exercises: 3D printing and sensor characterization Antonia Georgopoulou (Empa, Switzerland) Somashree Mondal (Empa, Switzerland) Louisa Eckey (Empa, Switzerland)
11:00 - 12:00	P	Group exercises: 3D printing and sensor characterization Antonia Georgopoulou (Empa, Switzerland) Somashree Mondal (Empa, Switzerland) Louisa Eckey (Empa, Switzerland)
12:00 – 13:30		<i>Lunch break and networking</i>
13:30 – 14:30	L	Functionalized fiber reinforced composites via thermally drawn multifunctional fiber sensors Michaud Véronique (EPFL, Switzerland)
14:30 – 15:30	L	Development of functional bionanocomposite materials for application as sensors, actuators and energy harvesters Paula Ferreira (Universidade de Aveiro, CICECO-Aveiro Institute of Materials, Portugal)
15:30 – 16:00		<i>Coffee break</i>
16:00 – 17:00	L	Carbonic based polymeric nanocomposites for Structural Health Monitoring and Body Motion Detection Olalla Sánchez-Sobrado (AIMEN, Spain)
17:00 – 18:00	L	Self-sensing applications in civil engineering with

		different composites Oğuzhan Öztürk (KTÜN, Türkiye)
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Thursday, June 8th, 2023 | Application

- Venue: Akademie, Empa, Überlandstrasse 129, 8600 Dübendorf, Switzerland
- Link to the live streaming (*registration required*)

<i>Time</i>	<i>Type</i>	<i>Title and Trainer</i>
09:30 – 10:00		<i>Welcome coffee</i>
10:00 – 11:00	L	Electrochemical surfactant sensors for environmental and industrial applications Nikola Sakač (University of Zagreb, Croatia)
11:00 - 12:00	L	Multifunctional graphene-based polymer nanocomposites for 3D printing and sensors application Rumiana Kotsilkova (IMech-BAS, OLEM, Bulgaria)
12:00 – 13:30		<i>Lunch break and networking</i>
13:30 – 14:30		Nanobiosensors platforms for diagnostics applications Arben Merkoçi (ICREA, ICN2, BIST, Barcelona, Spain)
14:30 – 14:45		Closing remarks Evangelia Pavlatou (NTUA, Greece)
15:00 – 16:00		<i>Visiting of NEST at Empa</i>

Event types legenda

L: Lecture (trainer in presence + live streaming)

LR: Lecture (trainer from remote + live streaming)

P: Project work in presence (+ live streaming)

How to reach Empa

<https://www.empa.ch/web/empa/>

(At the bottom of the homepage use the **link directions PDF**)