



THE CHEMICAL SIDE OF LIFE

by Enrico De Angelis

A group of researchers in chemical and materials engineering organized a meeting so PhD-oriented and of a role model, this last February 12th, that we thought worth to open this newsletter telling its story.

It was the Politecnico's session of a [GIWoBr](#): coordinated by [Elisabetta Brenna](#).

GIWoBr is an initiative of IUPAC, the *International Union of Pure and Applied Chemistry* and, although it was aimed at "strengthening bonds" and "catalyzing reactions" it is not a bromide salt, because **Br** means *Breakfast*, **Wo** is for *Women* and **GI** for *Global*.

IUPAC is a one century old scientific organization: it is the authority that names elements in the periodic table, standardizes atomic weights, other fundamental data and measuring methodologies, and spreads the culture of chemistry. It recently assumed the goal to "strengthen the bonds" among the fragmented communities of researchers, to enhance collaboration and open science and to "provoke and catalyze a reaction" able to reduce the biases and gaps between genders in science.

The only department @polimi with a [female Head](#) wholeheartedly joined this event, but not just because explicitly for women (the room was populated by women, mostly, but not only and, in any case, the whole faculty of Politecnico was invited). Informal meetings and sharing are very powerful opportunities: they generate social relations, that is one of the most precious asset, in the actual [infosphere](#); they are a soothing remedy against the fears and the solitude of the scientist and, eventually, may pollinate research flowers and produce interesting, original hybrid seeds and fruits.

The idea is great, easy to be organized, costs much less than a conference, is flexible (hard-science or science communication or both) and it may take younger researchers in touch with a lot of colleagues in the world and, let me underline, also with those colleagues from the next door you speak with.

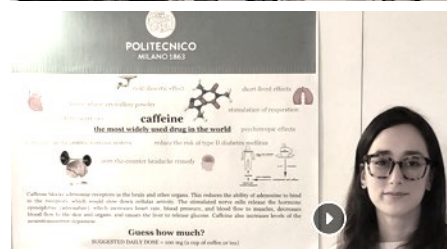
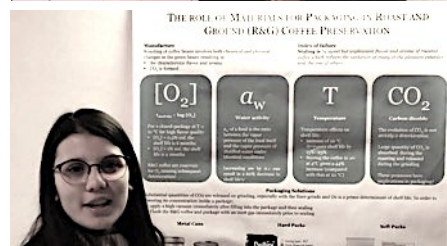
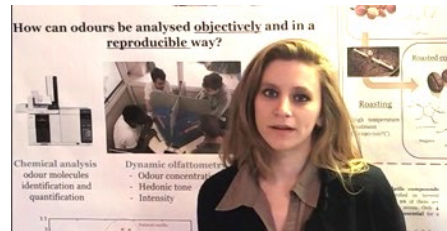
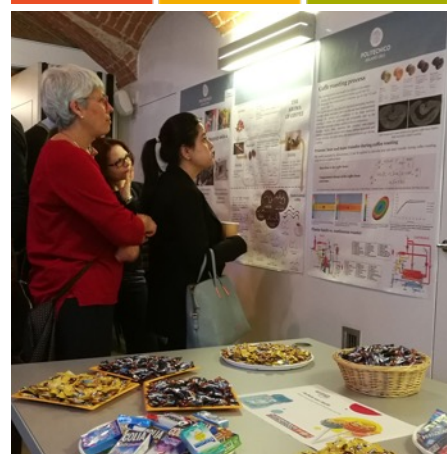
It is a series of local events, in a single day, running along time zones like New Year Celebration (it starts in Auckland, New Zealand and ends in Haway, 24 hours later): you can take part of few, of every one and, if properly registered, of everything, whenever you want.

When the local community wakes up, its members meet on the pretext of coffee and sweets and start telling their stories. A great idea!

2020-GIWoBr event was limited to Eurasia, started in Omsk, Russia, stepped in Uppsala (Sweden), Athens (Greece) and Milano, and ended in Porto (Portugal), but many, many other research groups in the world (not necessary at breakfast time) joined and interacted on-line: see [here the map](#) of participants. You can also see the [Flickr group](#) for few more pictures and videos.

From the last three pictures on the right you can directly access to the videos: of the three PhD students who took part of the event.

Note the topic: Coffee! ... it was Italian breakfast time!!





CALLS AND EVENTS



ST SEMINARS SERIES: THE SHAPE OF THE FUTURE

The Dipartimento di Elettronica, Informazione e Bioingegneria and ST Microelectronics organise the ST Seminars series “The Shape of the Future“. The events will take place at DEIB in “Emilio Gatti” Conference Room. The first appointment will be on March 11th, 2020 at 4.30 pm on “The evolution of the Smart Power technologies and how has changed the design methodology in the last 20 years“. Further details in [this page](#). The participation is free of charge but registration is required (at the [following link](#)).

11th March 2020, 4.30pm



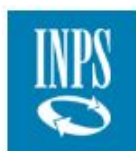
INNOVATE FOR THE "INTERNET OF INTELLIGENT THINGS"

STMicroelectronics is pleased to launch Technologies and Systems Days, a series of events to foster collaborations and exchanges between Industry and Academia. These events give researchers the opportunity to share with students their latest developments on emerging technologies topics that include, but are not limited to, artificial intelligence, next-gen sensors, and innovative platforms. This edition entitled Innovate for the “Internet of Intelligent Things” is organized in collaboration with the Department of Electronics, Information and Bioengineering of Politecnico di Milano and includes:

- Keynotes by world-renewed innovators
- Talks with researchers and developers from ST and Politecnico di Milano
- An exhibition area where to see live demonstrations and prototypes of research projects
- A testimony of an internship experience in ST.

Further details are available in [this page](#). Please register at the [following link](#)

26th March 2020, 8.30am-17.30pm, aula De Donato



INPS GRANTS FOR STUDYING ABROAD

INPS, the Italian National Institute for Social Security issues a call for grants aimed at sons and daughters of employees working in the Italian public sector. The grants cover the expenses of study periods abroad, especially aimed at learning foreign languages. For further details please visit [INPS website](#)

Deadline for applications: 10 March 2020



VISION INSTITUTE: PHD POSITION

A position for a PhD student is available starting next September in the [Olivier Marre](#) lab, in the [Vision Institute](#), Paris. The funded position is part of a Marie Curie training network, and the student will have the opportunities to interact with a network of retina labs across Europe.

A major focus of the lab is to understand the computations performed by the retina on the visual scene, how they depend on the visual context, and what are the circuits that implement these computations. They address these issues using modeling and a combination of experimental tools allowing to stimulate specific components of the retinal circuit while recording the retinal output.

The lab is highly interdisciplinary (biology, physics, engineering... doing modeling, experiments or both) and collaborative. The exact project is flexible depending on the student interests. PhD student should be from a foreign country and have spent less than a year in France over the last 3 years. If you are interested please send a cv to olivier.marre@gmail.com

Position starting September 2020





POLITECNICO
MILANO 1863

ERC GRANTS – TIPS AND TRICKS FOR A SUCCESSFUL PROJECT

Prof. Mario Caironi

Mario Caironi will describe his experience within his prestigious European Research Council (ERC) grants, including the recently awarded 2019 ERC Consolidator Grant “ELFO, Electronic Food: enabling edible electronic systems for biomedical and food monitoring applications”.

March 27th 2020, DEIB - Conference Room "E. Gatti" (building 20)



POLITECNICO
MILANO 1863

STATISTICS FOR SUSTAINABLE DEVELOPMENT

Politecnico di Milano / Campus Life Division - Sustainability Unit in collaboration with the UNIPOLIS Foundation organizes the workshop on the topic: Statistics for sustainable development. The workshop (in Italian) is mainly intended for researchers, PhD candidates, and Postdoc. It is carried out with the aim of raising awareness of the potential in using statistics to promote sustainable development policies. Registration in [this page](#), program and further informations from [this page](#)

March 31st, Aula Donatori



MATLAB® ASSOCIATE CERTIFICATION

On Tuesday 21 April 2020, at 4.30 PM, Politecnico di Milano will host the test to achieve the Matlab® Associate Certification, the first step in the MATLAB® certification track. The test will be held at the Bovisa Campus (Room B8.2.1) as multiple-choice questions exam. To prepare for the test, you are strongly invited to follow the Matlab Fundamentals online course, available for all Politecnico di Milano from the Matlab Academy platform (see [here](#) for further information). The discounted prize for taking the test is EUR 100 + 22%VAT = EUR 122,00. Candidates interested in taking the exam are invited to register by filling in and submitting the form at the website [here](#). Only the first 40 registrations will be accepted.

April 21st 2020, Bovisa Campus (Room B8.2.1)



SEMINARS AND WORKSHOPS



PARMA SUMMER SCHOOL 2020 “ONE HEALTH”

The European Food Safety Authority (EFSA), the School of Advanced Studies on Food and Nutrition of the University of Parma, with the collaboration of the Catholic University Sacro Cuore of Piacenza, are organising a Summer School for early-career researchers with the objective to provide an opportunity to learn from some of the most prominent experts in the field of One Health Approach, including theory, case studies, economic impact and consumers' perception. One Health is an approach to designing and implementing programmes, policies, legislation and research, at local, regional, national, and global level, in which multiple disciplines relate and work together to achieve better public health outcomes.

9-11 June 2020, Parma



LAKE COMO SCHOOL
OF ADVANCED STUDIES



SUMMER SCHOOL “GOING CIRCULAR WITH CRITICAL RAW MATERIALS”

The goal of the School is to advance understanding of how circular economy approaches may assist a sustainable management of raw materials, from a company and supply chain perspective. This topic will be examined in light of technological, economic, environmental and regulatory aspects. Participants will have the chance to meet prominent scholars in the material criticality and circular economy fields to gain insights on current research and industrial practice, as well as emerging opportunities. Participation in and completion of the school is equivalent to 5 ECTS. Candidates interested in participating are requested to apply on the Summer School [webpage](#) before March 30th, 2020. See also the [Leaflet](#)

6-10 July 2020, Como





STARTING COURSES – PHD SCHOOL

PROJECT MANAGEMENT BASICS

Prof. Beffani Armando, Prof. Fuggetta Alfonso, Prof. Grilli Colombo Sara

Develop Project Management competencies and provide basic tools and techniques for Project Management activities

From 3rd to 17th March 2020



SCIENTIFIC COMMUNICATION IN ENGLISH

Prof. Biscari Paolo, Prof. Sluckin Timothy

The aim of the course is to develop and improve the candidates' scientific writing, as well as increase their ability to deliver scientific and technical presentations in English.

From 3rd to 20th March 2020



SCIENTIFIC REASONING: PHILOSOPHY, LOGIC AND APPLICATIONS

Prof. Valente Giovanni, Prof. Chiffi Daniele

The course aims to explore the different forms of reasoning adopted in scientific practice. Specifically, it deals with philosophical issues concerning the logic of science and the way in which it can be reliably applied in various scientific disciplines as well as in engineering, architecture and design.

From 24th to 27th March 2020



STARTING COURSES – DOCTORAL PROGRAMMES

PHD IN INFORMATION TECHNOLOGY

ORGANIC ELECTRONICS: PRINCIPLES, DEVICES AND APPLICATIONS

Prof. Dario Andrea Nicola Natali

The interest in organic semiconductors stems not only from their intriguing optoelectronic properties – which can be chemically tailored- but also from their chemical and physical peculiarities, such as the mechanical flexibility, solubility, processability at almost room temperature and on virtually arbitrary substrates, compatibility with large area coverage. Most notably, thanks to the solution processability, organic semiconductors can be processed as functional inks and dispensed by means of techniques adapted from the graphic arts, such as flexography, gravure, screen-, aerosol- and inkjet- printing. All these features offer a stimulating environment for applications that can be hardly addressed by means of conventional inorganic semiconductors (large-area imagers and displays, thin-film sensors, flexible optoelectronics systems, biocompatible/disposable electronics).

The course aims at providing the scientific and technological background of this emerging field.

From 2nd to 6th March 2020





COPERNICUS HACKATON WINNERS

Copernicus is not only the name of the astronomer who displaced Ptolemaic geocentric model (the Earth at the center of the Universe) and started the Scientific Revolution. It is also the *Earth Observation Programme of the European Union*, a great effort providing free open data (mainly from a series of dedicated satellites that look at our planet) to all.

The **Hackaton** is a hack(er mar)athon: you are a hacker (that is a nerd with a tendency to force – and crack – codes and software), you join with dozens of pairs and take part of a thematic, non-stop, workshop aiming some code writing on a specific topic. By extension, any kind of tech-expert who perform a full-immersion, brain-storming-based workshop about a project (mostly legal) takes part of a hackaton, usually to stimulate and to forge new ideas.

Every Hackaton, like any marathon, has one or more winners.

The city of Vicenza and the local Confartigianato, hosted the Italian 2020 Copernicus Hackaton, aiming to encourage the use of Copernicus data (a treasure considered underexploited) and IOT technologies in added-value services that can benefit small and medium-sized businesses in our area and local public administrations.

Among researchers, consultants, young entrepreneurs (in Italian: startupper), it was a group of students that gained the first place: among them one of our PhD student.

Their proposal, *S³ (Smart Built Environment)* connects satellite data with data from smart cities devices to predict the local condition (i.e. air pollution and ground temperature) to inform citizens and city managers to react accordingly.

The winners (below) were: Luis Morais (PhD candidate in *Urban Planning*), Sibila Ferroni and Silvia Biandrate (Building Engineering students @polimi), Sara Mazzucato, Jacopo De Luca and Federico Bollotta (Padova university), and Stefan Fishes, a German telecommunication engineer.

