

DATA: Dijous 7 de març de 2019

PARTICIPANTS: Ester Pascual, Maria José García Celma, Francesca Peiró, Dolors Velasco, María Pilar Ramírez de la Piscina, Jordi Ignés, Sergi Hernández

El tema a tractar durant la reunió d'avui va ser el següent:

1. Dades d'alumnes matriculats.

A l'inici del semestre hi havia la problemàtica de tenir assignatures amb menys de 5 alumnes. Després d'incloure als alumnes d'intercanvi Erasmus, l'ocupació de totes les assignatures és superior a 5.

2. Actuacions per captació d'alumnes:

Per tal de millorar les matriculacions de cara al nou curs 2019-20, s'han acordat fer diferents actuacions per part de la coordinació:

- Contacte amb empreses per a fer TFMs i/o pràctiques no curriculars.
- Donar difusió de les beques de l'IN2UB, per fer TFMs en unitats d'aquest institut.
- Fer difusió del programa de màster en els graus de l'entorn proper (física, química i biotecnologia).

3. Erasmus Mundus: estat, nous estudiants, spring meeting...

Enguany hostegem el spring workshop Meeting del programa de màster Erasmus Mundus. Es modifica i s'aprova la nova proposta de programa d'activitats pels estudiants de primer curs (al final d'aquest document).

Les despeses corren a càrrec del programa de màster (tot i que la UB posa a disposició els seus espais). Inicialment la UB avançarà la despesa que serà posteriorment retornada pel consorci.

S'inicien també els tràmits per verificar aquest títol de màster (RUC i altres aplicatius UB).

S'ha aprovat tenir converses amb el professorat per tal d'explicar el programa d'Erasmus Mundus. També s'han aprovat els canvis de semestres de les assignatures optatives del màster local que afecten directament al programa de màster Erasmus Mundus.

4. S'aprova tenir un representant del departament de Física de la Matèria Condensada.

ANNEX



Katholieke
Universiteit
Leuven



Technische
Universität
Dresden



Chalmers
Tekniska
Högskola



UNIVERSITAT DE
BARCELONA

AGENDA SPRING WORKSHOP 2019

Erasmus Mundus Master Nanoscience and Nanotechnology

23-28 April 2019, Barcelona, SPAIN

Tuesday 23 April: Arrival of the 1st year students (28 students). Youth hostels: *Dream Cube Hostel* and *Cool & Chic Hostel*.

Wednesday 24 April: Activities for 1st year students.

Group 1:

9:30-12:30: Clean Room Training

12:30-14:30: *Lunch*

14:30-17:30: Clean Room Training

Group 2:

09:30-11:30: Visit to IBEC and Scientific Park

12:00-13:00: SEMINAR “*Women in Science*” at room *Enric Casasses*, by **Dr. Sònia Estradé**, President of the equality committee of the Faculty of Physics, UB

13:00-14:30: *Lunch*

14:30-17:30: Visit to installations at the IN2UB (faculties of Chemistry, Pharmacy and/or Physics)

Thursday 25 April: Activities for 1st year students.

Group 1:

09:30-11:30: Visit to IBEC and Scientific Park

12:00-13:00: SEMINAR “*Energy Loss Spectroscopy at High Resolution: Probing the local electronic structure and the plasmonic response of materials*” at room *Enric Casasses*, by **Prof. Gianluigi Botton**, McMaster University, Hamilton, Canada

13:00-14:30: *Lunch*

14:30-17:30: Visit to installation at the IN2UB (faculties of Chemistry, Pharmacy and/or Physics)

Group 2:

9:30-12:30: Clean Room Training

12:30-14:30: *Lunch*

14:30-17:30: Clean Room Training

Thursday 25 April: Arrival of the 2nd year students (36 students). Youth hostels: *Pere Tarrés* and *Cool & Chic Hostel*.

14th Erasmus Mundus Nano Spring Workshop meeting

26-27th April 2019, Barcelona

DAY 1: Friday April 26, 2019

09:00-10:00 **Welcome and Practical information**
Bart Sorée, Coordinator EMM Nano, KULeuven

10:00-11:00 **2nd year University presentations**
10:00 Sergi Hernandez, U Barcelona
10:15 Florian Pump, TU Dresden
10:30 Thilo Bauch, Chalmers
10:45 David Ferrand, UGA Grenoble

11:00-11:20 **Coffee break**

Thesis presentation parallel sessions #1

(15 min + 5 min Q&A per student)

Chair: S. Hernandez (Aula V14)

11:20 Adham Kristi, Synthesis and electrical characterization of topological insulator Bi₂Se₃ nanobelts

11:40 Annavarapu Nirav, Numerical Modelling of Optical Parametric Oscillators using Chi³ nonlinearities in photonic ICs

12:00 Delebosse Fabien, Design of mechano-mimetic environment for enhancing the physiology of the in vitro studies on lung adenocarcinoma

12:20 Duong Tuan Quang, Investigation of defects in high-k gate stack of 22nm FD-SOI transistors

Chair: D. Ferrand (Aula V15)

11:20 Bia Roberto, Top-gate organic field-effect transistors on plastic film

11:40 Lacey Vandana, Spectroscopic analysis of microbead interaction with blood serum: Application for allergy diagnosis

12:00 Jamal Rimsha, Design and fabrication of an integrated microbiology impedance sensor

12:20 Elkholy Karim, High-reflectivity GaAs-based photonic crystal reflectors for cavity optomechanics

Chair: B. Soree (Aula Enric Casasses)

11:20 Das Chaudhury Rachana, Cell motility and proliferation in constraint extracellular matrix

11:40 Bishayee Chayan, MEMS packaging and studying new designs of the valves

12:00 Tian Yuan, Electrically conducting textiles for thermoelectrics

12:20 Fekri Zahra, Fabrication and electrical characterization of MoS₂-based field effect transistors



13:00-14:30 Lunch

Thesis presentation parallel sessions #2

(15 min + 5 min Q&A per student)

Chair: T. Bauch (Aula V13)

14.30 Goldberg Iakov, Highly ordered MODFET structures

14.50 Kadu Indrayani, Continuous biomarker monitoring by particle mobility sensing with single-molecule resolution

15.10 Musig Beatrice, Novel nanomaterials for metal ions binding in waste water

15.30 Kedia Mayank, Organic Solar cells via Organic Vapor Jet Printing Technique

Chair: A. Romano (Aula V15)

14.30 Ibarra Michel, Development of ultra-thin tunneling barriers for passivating contacts of Si based Solar cells

14.50 Shrivastava Ananya, 3D hepatocyte cultures for the study of metal homeostasis in the context of a Wilson disease model

15.10 Nguyen Le Trang Anh, Bacterial competition and coexistence in bioreactor millidroplet

15.30 Kunchur Narayan, Quantum transport in magnetic topological insulators

Chair: F. Pump (Aula Enric Casasses)

14.30 Kateel Vaishnavi, Fabrication and Characterization of Two-dimensional Heterostructure

14.50 Lu Ning-Hui, Characterization and functional assessment of heparin-based hydrogel with biomolecular gradient

15.10 Zhang Xueshan, Solution-shearing flexible electronics

15.30 Parekh Urvi, Controlled nucleation and growth of molecular nanocrystals for biophotonics

16:00-17:00 Industry presentations (Aula Enric Casasses)

16:00 - Francisco Ramos - FAE

16:15 - Antonio Onteninete - Advanced Nanotechnologies

16:30 - Alejandro Perez - IREC

16:45 - Mario Montes - Impetux

17:00-17:20 Coffee break

17:20-18:30 Feedback session (Aula Enric Casasses)

20:00 Dinner at the restaurant La Barca del Salamanca



DAY 2: Saturday April 27, 2019

Thesis presentation parallel sessions #3

(15 min + 5 min Q&A per student)

Chair: G. Groeseneken (Aula V11)

10:00 Murugesan Ramasamy, Wavefunction based calculation to study Quantum magnetism in low dimensional systems

10:20 Oji Ugwumsinachi, Importance of chiral phenomena for domain wall shift registers

Chair: T. Bauch (Aula V13)

10:00 Osman Amr, Fabrication and Characterization of Josephson Junctions

10:20 Oliveros Sergio, Nanosensor electronic platform for detection of Microswimmers

Chair: B. Sorée (Aula V15)

10:00 Ravsher Taras, Characterization of ferroelectric cell for memory applications

10:20 Patil Akash, Scanning gate microscopy of quantum Hall edge channels in graphene

10:40-11:40 **Alumni panel (Aula V11):** Anastasiia Kruv (PhD student imec), Michael Buhagiar (STMicroelectronics), Rafa Mestre Castillo (PhD U Barcelona, IBEC), Vukan Levajac (PhD student TU Delft)

11:40-12:00 **Coffee break**

Thesis presentation parallel sessions #4

(15 min + 5 min Q&A per student)

Chair: S. Hernandez (Aula V11)

12:00 Van den Eeckhoudt Ruben, Acoustic energy harvester for wireless sensing

12:20 Sandoval Diana Isabel, Lab-on-Chip system for the detection of light-driven janus microswimmers

Chair: D. Ferrand (Aula V13)

12:00 Velasco Santiago Andres, CMOS compatible carbon microsupercapacitors for on-chip energy storage

12:20 Sathyadhama Aniruddha, Simulation and experimental investigations on coupled micro- and nano-mechanical oscillating beams

Chair: F. Pump (Aula V15)

12:00 Venkataramani Manasi, Low-Donor Content Organic Photovoltaics

12:20 Villalobos Adrian, Development of p-conducting passivating contacts for Si based solar cells

13:00-15:00 **Lunch at La Riera (close to Camp Nou) + group picture**

16:00-18:00 **Cultural visit city center Barcelona**

