

SINTEC SUMMMER SCHOOL

SMART BIOELECTRONIC AND WEARABLE SYSTEMS

7 - 10 JUNE 2022 | CASTIONE DELLA PRESOLANA (ITALY)

AGENDA

Co-organizers:



WELMO

SOCKET:SENSE



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824984

DAY 1

From PCB and Printing Technology to Smart Bioelectronics and Wearables

Tuesday, 7th June 2022

13:00 - 14:00 Registration & Welcome

14:00 - 18:30

| TIME | TITLE OF THE SPEECH | SPEAKER |
|---------------|--|---|
| 14.00 - 14.10 | Welcome: school introduction | Sara Attanà (Warrant Hub) |
| 14.10 - 14.30 | Round table presentation | All participants |
| 14.30 - 15.00 | SINTEC Project presentation | Prof. Klas Hjort (Uppsala University) |
| 15.00 - 15.45 | Printing and PCB technology for flexible and stretchable patches | Gustaf Mårtensson (Mycronic) |
| 15.45 - 16.15 | Coffee break / Poster Session | |
| 16.15 - 17.00 | IoT solutions and communication between devices | Hashim Quraishi (Evalan) |
| 17.00 - 17.45 | Sensor Technology for Health and Wellbeing | Alessandro Gumiero (STMicroelectronics) |
| 17.45 - 18.30 | Open discussion | Prof. Klas Hjort (Uppsala University) |
| 18:30 | Closing of the first day school | |

20:00 - 22:00 Dinner at the Hotel



DAY 2

Smart Bioelectronics and Wearables for Sport Monitoring

Wednesday, 8th June 2022

8:00 - 14:00 TREKKING TO MONTE PORA & MONTE ALTO – 1,723 m
(Lunch included @Rifugio Magnolini)

Let's apply some smart patch prototypes to see how they work and discuss about the results during the afternoon!

15:00 - 18:30

| TIME | TITLE OF THE SPEECH | SPEAKER |
|---------------|---|--|
| 15.00 – 15.15 | Welcome | Sara Attanà (Warrant Hub) Prof. Klas Hjort (Uppsala University) |
| 15.15 – 16.00 | Wearable technologies in winter sports: Physiology and Biomechanics | Matej Supej (University of Ljubljana) Hans-Christer Holmberg (Luleå University of Technology) |
| 16.00 – 16.30 | Wearable technology in summer sports | Nina Verdel (Mid Sweden University) |
| 16.30 – 17.00 | Coffee break / Poster Session | |
| 17.00 – 17.30 | Challenges to perform measurements in the laboratory vs. the field: state of the art and perspectives | Barbara Pellegrini (University of Verona) |
| 17.30 – 18.00 | Fat-IBC: A new paradigm in Body-Area Communication | Mauricio Perez (Uppsala University) |
| 18:00 – 18:30 | Open Discussion | Prof. Klas Hjort (Uppsala University) |
| 18.30 | Closing of the second day school | |

20:00 - 23:00 Dinner at the hotel



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DAY 3

Smart Bioelectronics and Wearables for Monitoring Health Parameters

Thursday, 9th June 2022

8:30 - 13:00 TREKKING ON PREDUSOLO NATURAL PARK

13:00 - 14:00 Light Lunch

14:00 - 18:30

| TIME | TITLE OF THE SPEECH | SPEAKER |
|---------------|--|--|
| 14.00 - 14.15 | Welcome | Sara Attanà (Warrant Hub) Prof. Klas Hjort (Uppsala University) |
| 14.15 - 15.00 | LifeChamps sensing platform and digital biomarkers for monitoring QoL of older cancer survivors | Antonis Billis (Aristotle University of Thessaloniki) |
| 15.00 - 15.30 | Smart patches and Wearables for clinical applications | Guido Pagana (LINKS Foundation) |
| 15.30 - 16.00 | Coffee break / Poster Session | |
| 16.00 - 16.30 | Clinical trials for socket comfort analysis and constructing biomechanical models for sensor deployment | Pouyan Mehryar (Teesside University) |
| 16.30 - 17.00 | Analyzing dynamic operational conditions with sensors and models for anomaly detection | Dejiu Chen (KTH) |
| 17.00 - 17.45 | Effective monitoring of lung activity in lung related chronic diseases patients utilizing sound and visual signals in a comfortable wearable setting | Alexis Melitsiotis (EXODUS) Nikolaos Beredimas (Aristotle University of Thessaloniki) |
| 17.45 - 18.15 | Open Discussion | Prof. Klas Hjort (Uppsala University) |
| 18.15 | Closing of the third day school | |

20:00 - 23:00 Gala dinner



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DAY 4

General Applications and Perspectives in Smart Bioelectronics and Wearables

Friday, 10th June 2022

| TIME | TITLE OF THE SPEECH | SPEAKER |
|---------------|---|--|
| 09:00 - 09:15 | Welcome | Sara Attanà (Warrant Hub) Prof. Klas Hjort (Uppsala University) |
| 09:15 - 10:00 | Non-invasive chest imaging and sound analysis of lung activity validated in 2 clinical studies A). Electronics and Textiles development B). Algorithmic development and Visualisation C). Sound, EIT analysis and validation | Josias Wacker (CSEM) Rita Paradiso (SMARTEX) Nikolaos Beredimas (Aristotle University of Thessaloniki) Bruno Rocha, Diogo Pessoa (University of Coimbra) Inez Frerichs (Kiel University) |
| 10:00 - 10:45 | Round-table – potential exploitable results and commercial perspectives | Sergio Guillen (MySphera) |
| 10:45 - 11:15 | Coffee break / Poster Session | |
| 11:15 - 11:45 | Using wearables and Artificial Intelligence to measure personal comfort in living environments | Sara Casaccia (Università Politecnica delle Marche) |
| 11:45 - 12:15 | Wearable prototype for space and industrial applications | Antonio Del Mastro (Mars Planet Italia) Filippo Servalli (Radici InNova) |
| 12:15 - 12:45 | Smart Bandage with textile organic biosensors for wearable healthcare | Marta Tassarolo (University of Bologna) |
| 12:45 - 13:30 | Open discussion - Closing of the school and graduation | Isella Vicini, Sara Attanà (Warrant Hub) Prof. Klas Hjort (Uppsala University) |

13:30 - 14:30 Light lunch & Farewell



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