



ER²_{SCHOOL}



2° European R²S²Robotic Rehabilitation Summer School

13-18 May 2019. Porto Potenza Picena (MC), Italy

An innovative educational approach for rehabilitation professional taking the advantage of a concrete perspective of engagement in Robotics Rehabilitation.

Promoted and organized by ESPRM - Robotic and new Technologies Committee under the auspices of PRM-UEMS Board, Simfer and SIRN. In cooperation with Santo Stefano Rehabilitation Group and International Industry Society for Advanced Rehabilitation technology.



Course Presentation Presentation

The teaching program develops in 6 full days and is characterized by highly qualified contents in Rehabilitation. Each day consists of a first part of theoretical training and a second part of broad functional and practical approach, in order to acquire the skills necessary to use the innovative and technological devices of PRM.

In addition, the aim of this 2nd edition is to provide competence also for the building and management of data collection and research activity in the medical use of these devices, even to create a further international collaboration net in the rehabilitation activity. In this aim we are creating a dedicated interactive Web site to develop a true European network for share datas and informations, experiences and research projects in Advanced technologies in Rehabilitation: we will involve all the Robotic Committee Members, all members of Faculties and participants in RRSS, first and second edition.

The learning activity will be completely in English.

The School will be under the organization of ESPRM Robotic Committee and in deep cooperation with UEMS PRM Section and UEMS PR Board, remaining confirmed too the cooperation with IISART, Simfer, Sirn and Ancona Medical University, while Santo Stefano (KOS Group) will be partner for event secretariat and will take care of logistic and hospitality for teachers and students.

Attendants will be up to a maximum of 25 in order to guarantee the best implementation of the practical internship activity on the different devices with the guidance of an adequate number of qualified trainers.

Alessandro Giustini, Chair of ESPRM Robotic Committee

- 8.30 a.m. Arrival of speakers and participants Welcome addresses by ESPRM, Robotic Special Interest Group, UEMS PRM Section & Board, IISART, SIMFER, SIRN, SStefano Kos
- 9.00 a.m. European diffusion of new technologies in PRM - A. Juocevicious
- 9.30 a.m. Needs for PRM and allied health professional education at the European and National Levels - M.G. Ceravolo
- 10.00 a.m. Coffee and Tea
- 10.³⁰ a.m. Clinical up to date - Introduction: Experiences and devices in Robotassisted rehabilitation of Posture and Gait disorders E. Andrenelli, M. Collina
- 11.00 a.m. Clinical up to date. Introduction: Devepolments for rehabilitation treatments with Exoscheleton - Taku Ishida, F. Chiampo, M. Pizzaferri
- 11.30 a.m. **Practice and Training**
- 12.30 a.m. Lunch
- 2.00 p.m. Practice and Training
- 4.30 p.m. Discussion. Pro/Contra - E. Andrenelli, A. Jocevicious, M.E. Collina
- 5.30 p.m. Conclusion

8.³⁰ a.m. Arrival of speakers and participants 9.00 a.m. Presentation of some examples and draft projects: Two innovative multicentre Projects in Italy - S. Pournajaf Cooperation between PRM specialists and companies to develop 9.30 a.m. research, education and clinical applications - A. Giustini 10.00 a.m. Team-work strategies shared by PRM professionals with Companies and IISART - M. Keller 10.30 a.m. European Projects in this Field: Actual and future activities - E. Ilieva 11.00 a.m. Coffee and Tea 11.²⁰ a.m. Clinical up to date - Introduction: Experiences and devices in robotic rehabilitation of the upper limb and hand - F. Posteraro, D. Tulli 12.00 a.m. Practice and Training 1.00 p.m. Lunch 2.30 p.m. Practice and Training 4.30 p.m. Discussion. Pro/Contra - F. Posteraro, D. Tulli, E. Ilieva 5.30 p.m. Conclusion

- **May 15**
- 8.30 a.m. Arrival of speakers and participants
- 9.00 a.m. How to develop a research project (selection of outcome measures, inclusion/exclusion criteria, ethical aspects, randomization, blind assessment, sham therapy ...) *M.G. Ceravolo*
- 9.30 a.m. Technological innovation in Rehabilitation: current status, opportunities and challenges for improving quality of life of persons with disabilities *S. Mazzoleni*
- 9.⁵⁰ a.m. International and interprofessional networking to develop common standards for research and innovation. Cooperation between Medical and technical competences *S.Mazzoleni*
- 10.10 a.m. RCT about the efficacy of upper extremity robotic assisted therapy early after stroke: discussion about the difficulty to recruit patients, convince PT & OT to participate to this RCT.

 Development of RobiGame: a serious game to assess and rehabilitate neglect and upper limb motor function *T. Lejeune*
- 10.50 a.m. Coffee and Tea
- 11.20 a.m. Introduction Clinical up to date
 Treatment in Movement Disorders and Neurodegenerative health conditions M. Capecci, D. Volpe
- 12.10 a.m. Practice and Training
 - 1.00 p.m. Lunch
- 2.00 p.m. Practice and Training
- 3.30 p.m. Discussion. Pro/Contra M. Capecci, S. Pournajaf, M.G. Ceravolo
- 4.00 p.m. Interactive Workshop: How to become a successful clinical researcher? H. Stam
- 5.30 p.m. Conclusion

Day 4: Thursday, May 16 Myolab -Jesi (Ancona) May 16

8. ³⁰ a.m.	Arrival of speakers and participants to Myolab
9. ⁰⁰ a.m.	Welcome and presentation of Myolab facility
9. ²⁰ a.m.	Robotic Rehabilitation: How it interacts with Recovery Mechanisms (Biomechanical, Pharmacological, Neurophysiological aspects) E. Andrenelli
9. ³⁰ a.m.	Motivation and Communication how to foster patients' active involvement in Participation in age of development - A. De Tanti
10. ⁰⁰ a.m.	Robotic rehabilitation in children with neurological disorders - E. Ilieva
10. ³⁰ a.m.	Italian rehabilitation experiences in rehabilitation in age of development <i>P. Moretti</i>
11. ⁰⁰ a.m.	Coffee and Tea
11. ²⁰ a.m.	Clinical up to date, Rehabilitation in age of development - A. De Tanti, P. Moretti
12. ⁰⁰ a.m.	Practice and Training
1.ºº p.m.	Lunch
2. ³⁰ p.m.	Practice and Training
4. ³⁰ p.m.	Discussion. Pro/Contra - E. Ilieva, E. Andrenelli
5. ³⁰ p.m.	Conclusion

- 8.30 a.m. Arrival of speakers and participants
- $9.^{00}$ a.m. Role of Physicians and Allied health Professionals in robotic rehabilitation: how to improve the patient motivation and confidence *D. Popa*
- 9.30 a.m. Artificial intelligence M. Zampolini
- 10.00 a.m. Robotic Rehabilitation: How it interacts in Rehabilitation Management. Roles in different settings from Acute to Home and Tele -Rehabilitation (Costs, Organization) A. Morgantini
- 10.30 a.m. How to share new technologies according investments and sustainability: InterLab Experience *M. Vallasciani*
- 11.00 a.m. Coffee and Tea
- 11.²⁰ a.m. Clinical up to date, Advanced devices and rehabilitation protocols in Virtual Reality and remotely supervised (home) treatments *M. Capecci, L. Pepa*
- 12.00 a.m. Practice and Training
 - 1.00 p.m. Lunch
 - 2.30 p.m. Practice and Training
 - 4.30 p.m. Discussion. Pro/Contra M. Capecci, L. Pepa, A. Morgantini
 - 5.30 p.m. Conclusion

Day 6: Saturday, May 18 KOS Santo Stefano Rehabilitation Hospital

- 8.30 a.m. Arrival of speakers and participants
- 9.00 a.m. Visit to the Smart Home
- 10.00 a.m. How to create International working-groups, about relevant research topics under the support of RRSS and ESPRM Robotic Committee *A. Giustini, M.G. Ceravolo, D. Popa*
- 11.00 a.m. Closing remarks (*)
 Delivery of Certificates
 Farewell to the Third Edition (*)
 - (*) Each speech includes a final moment for questions and discussion

Faculty CUITY

TEACHERS

Elisa Andrenelli, PRM Physicians, PhD Dept. of Experimental and Clinical Medicine - "Politecnica delle Marche" University, Ancona

Donatella Bonaiuti, Physiatrist, Member of the SIMFER's Board

Marianna Capecci, Assistant Professor of Physical and Rehabilitation Medicine - Dept. of Experimental and Clinical Medicine- "Politecnica delle Marche" University, Ancona

Maria Chiara Carrozza, Dir. Scientifico Fondazione Don Gnocchi

Maria Gabriella Ceravolo, Professor of Physical and Rehabilitation Medicine - Dept. of Experimental and Clinical Medicine- "Politecnica delle Marche" University, Ancona

Maria Elena Collina, PRM specialist, Santo Stefano Rehabilitation Group

Antonio De Tanti, PRM specialist, Santo Stefano Rehabilitation Group, Scientific Commitee Coordinator

Marco Franceschini, Professore Ordinario in Medicina Fisica e Riabilitazione, Università San Raffaele - Roma

Alessandro Giustini, School Scientific Director - Chair of ESPRM Committee "Robotic in Rehabilitation". Scientific Director of San Pancrazio Rehabilitation Hospital, Arco (Trento) - Santo Stefano Rehabilitation Group

Alvydas Jocevicious, MD, PhD Rehabilitation, Physical and Sport Medicine Center, Medical Faculty Vilnius University, Vilnius University Hospital Santariskiu Kliniko. Lithuania

Maya Keller, Product Manager, Hocoma AG - Switzerland

Elena Ilieva, MD, PhD Head of Department of Physical and Rehabilitation Medicine Medical University of Plovdiv Vice Dean of Medical Faculty Plovdiv, Bulgaria

Thierry Lejeune, Médecine Physique et Réadaptation - Cliniques universitaires Saint-Luc

Stefano Mazzoleni, PhD Assistant Professor, The BioRobotics Institute, Scuola Superiore Sant'Anna, Pisa

Paolo Moretti, Direttore Unità Operativa di Medicina Fisica e Riabilitazione, Istituto G. Gaslini - Genova

Antonello Morgantini, PRM specialist, Santo Stefano Rehabilitation Group Clinical Chief

Lucia Pepa, Engineer, PostDoc Fellow, Dept. of Experimental and Clinical Medicine "Politecnica delle Marche" University, Ancona

Daiana Popa, Clinical Rehabilitation Hospital Felix Spa, Romania - General Secretary of the Romanian Society of Rehabilitation Medicine

Federico Posteraro, Person in charge for Rehabilitation Department North Zone and Director of Rehabilitation Unit Versilia Hospital, AUSL Toscana Nord Ovest

Sanaz Pournajaf, Physiotherapist & Clinical Researcher, Department of Neurorehabilitation, IRCCS San Raffaele Pisana, Rome (Italy)

Henk Stam, President European Academy of Rehab Med.

Daniela Tulli, PRM specialist, Santo Stefano Rehabilitation Group

Massimo Vallasciani, PRM specialist, Santo Stefano Rehabilitation Group

Daniele Volpe, Fisiatra - Villa Margherita, Santo Stefano Riabilitazione, Vicenza

Mauro Zampolini, President UEMS-PRM Section (European Union of Medical Specialist - Physical and Rehabilitation Medicine) - Unità Sanitaria Locale Umbria N° 2 - NHS - Director of Department of Rehabilitation - Director of Neurology and Rehabilitation Ward Foligno Hospital

TUTORS

Bovari Paola, Fioschini Paola, Ruffini Roberta, Meschini Elisabetta, Grillo Camilla, Buontempo Katy, Cesareo Gloria, Sparapani Alessandro, Gaetani Lorena, Baldini Stefania, Perini Andrea, Garruto Costanza, Zucchini Elisa, Cipriani Michela, Chiara Spagnuolo, Tacconi Annalisa, Bovara Alessio, Lattanzi Elisa, Palmieri Michela Sara, Pizzaferri Monica, Cristella Catia, Luzio Sonia, Canafoglia Marisa.

SCIENTIFIC COMMITTEE

Alessandro Giustini, Mauro Zampolini, Maria Gabriella Ceravolo, Thierry Lejeune, Elena Ilieva, Maria Chiara Carrozza, Henk Stam, Daiana Popa, Alvydas Juocevicious, Stefano Mazzoleni, Antonio DeTanti, Massimo Vallasciani.

How to apply

The event is open to a maximum of 25 participants and is open to physicians specialists and specializing in physical medicine and rehabilitation.

Participation is subject to enrollment and the payment of dues € 794,00 VAT included.

The application form can be submitted online through the Santo Stefano Rehabilitation Group site: summerschool.sstefano.it no later than 6 May 2019. Registration will be confirmed by an email.

As the limited number event, participation requests will be considered in the order of arrival.

General management

The fee includes accommodation in hotel and transportation during the school.

Participants will be hosted at:

Hotel Girasole - Via Cristoforo Colombo 204, 62012 Civitanova Marche (MC)

Tel: +39 0733 771316 - Fax +39 0733 771576

http://www.hotelristorantegirasole.com/ (breakfast and dinner are included).

The hotel is 3 kms far from the school venue and everyday the transportation from and to the Hotel will be granted by the organizing committee. A social dinner will take place on Friday evening.

During the 5 days of school lunch will be served at 13.00 in the KOS - Santo Stefano Rehabilitation Hospital or MyoLab Facility.

The Lectures and speeches in the first part of morning will be given in the Conference room; afterwards, the participants will move to look at clinical treatments and directly test robotic and advanced devices in laboratories. At the end of training the participants will meet Faculty in the Conference room for questions and final discussion.

How to reach us

KOS -Santo Stefano Rehabilitation Hospital is in Porto Potenza Picena, near the see, 4 kms far from Civitanova Marche (Mc) where is the main train station in the area and where guest will be hosted in Hotel Girasole.

Event Secretariat

Servizio Formazione, Istituto di Riabilitazione S.Stefano Via Aprutina, 194 - 62018 Porto Potenza Picena (MC)

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