Through "IFESS Newsletter", we aim at sharing important information about the IFESS society and also at providing a space where each member can communicate important news or information to our community. Welcome on board and enjoy!
IFESS member can contribute by sending a message to christine.azevedo@inria.fr (150 words max)

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NEWS FROM IFESS

From IFESS to IFESS association

It has been 9 months since IFESS has made the translation from a non-profit organization based in the USA to an Austrian association based in Graz. One of the reasons to do this translation was to offer to the members more inclusion, becoming part of decision processes and supporting the society in its activities. For a long time, IFESS has been mainly a platform for organizing the annual conferences. Surely, this is still an important task and helps to spread knowledge and application of functional electrical stimulation in the world. However, IFESS has a broader mission. The statement how IFESS wants to 'promote the awareness, knowledge, and understanding of both electrical stimulation technologies and their uses' is 'The Society bridges research, application, and healthcare to enhance quality of life through advocacy, education, organization of international scientific meetings, and facilitation of inter-professional collaborations.' In monthly meetings the IFESS executive board has started to organize working groups around Education, Development, and Promotion. Now it's about time to open and ask the member base to actively participate. The next newsletter will focus on presenting more details how to join and participate in working groups. *Thierry Keller (President IFESS).*

MEMBERS' CORNER

IFESS Social network info: twitter @IFESS_org – facebook @IFESS.org

Upcoming events announcement

2019, June 24-28 IFESS conference REHABWEEK, Toronto Canada
https://www.rehabweek.org/scientific-information/ifess-program/

13th Vienna International Workshop on Functional Electrical Stimulation
The 13th edition of the traditional Vienna International Workshop on FES will be held from September 23 to 26, 2019 in Palais Eschenbach, situated close to the historic center of Vienna. We continue our proven principles of providing a discussion forum with mainly oral presentations, avoiding parallel sessions, publishing abstracts and selected full papers in our official partner journal Artificial Organs and offering actual hands-on courses. This time the courses will be at the end of the international scientific part and bridge to an advanced education day on the 26th, in German, for clinical professionals of all rehabilitation related disciplines in partnership with the organizers of this "2. Fachtag Elektrotherapie". Please find more details in the website https://fesworkshop.org/13th-workshop-2019

Workshop electrical stimulation of denervated muscles
November the 22nd and 23rd 2019 a workshop will take place at the International FES Centre® in Nottwil, Switzerland. The workshop will focus on the electrical stimulation of denervated muscles in theory and practice. The course should provide clinicians, physio- and occupational therapists working in neurorehabilitation as well as in neuro-skeletal rehabilitation a fundamental understanding about the treatment of a lower motor neuron lesion with electrical stimulation. It will cover a compound of theoretical knowledge and hands on by stimulating participants among each other and patients. The course language is English. Workshop speakers are Prof. Dr. Winfried Mayr, Associate Professor, Medical University of Vienna, Center for Medical Physics and Biomedical Engineering and Ines Bersch-Porada MSc, Head of the International FES Centre® in the Swiss Paraplegic Centre Nottwil. Course contents: 1) learn the differences in stimulation between lower and upper motor neuron damage, 2) convey muscle physiology in the case of denervation, 3) find out about forms of current, stimulation parameters, and stimulation protocols, 4) present various application examples in various diseases, 5) learn practical skills and abilities through practicing on each

other before transferring to patients, 6) find out about stimulation of denervated muscles through activity, 7) provide an insight into the clinical picture of partially denervated muscles, 8) provide an insight into the evidence for the method and current research projects. The idea is to spread the knowledge of electrical stimulation in denervated muscles worldwide to share the experience and give confidence for this kind of stimulation.

⊙ **CYBATHLON 2020** The CYBATHLON is a unique championship in which people with physical disabilities compete against each other to complete everyday tasks using state-of-the-art technical assistance systems. After the successful launch of CYBATHLON in 2016, the gates of the SWISS Arena in Kloten near Zurich will be opened for the continuation of the CYBATHLON on May 2–3 2020, when exciting races and challenging tasks will await pilots and spectators for the second time. Teams can again compete in six different disciplines, of which one is a Functional Electrical Stimulation Bike Race: http://cybathlon.ethz.ch/

Selection of recent publications

⊙ The clinical- and cost-effectiveness of functional electrical stimulation and ankle-foot orthoses for foot drop in Multiple Sclerosis: a multicentre randomized trial. Renfrew LM, Paul L, McFadyen A, Rafferty D, Moseley O, Lord AC, Bowers R, Mattison P. Clin Rehabil. 2019 Apr 11:269215519842254. doi: 10.1177/0269215519842254.

⊙ A cohort study of functional electrical stimulation in people with multiple sclerosis demonstrating improvements in quality of life and cost-effectiveness. Juckes FM, Marceniuk G, Seary C, Stevenson VL. Clin Rehabil. 2019 Apr 10:269215519837326. doi: 10.1177/0269215519837326.

⊙ Significant impact of implantable FES (ActiGait®) on gait parameters: A kinetic analysis in foot drop patients. Bucklitsch J, Müller A, Weitner A, Filmann N, Patriciu A, Behmanesh B, Seifert V, Marquardt G, Quick-Weller J. World Neurosurg. 2019 Apr 4. pii: S1878-8750(19)30712-0. doi: 10.1016/j.wneu.2019.03.064.

⊙ Neuromodulation for Functional Electrical Stimulation. Wilson RD, Bryden AM, Kilgore KL, Makowski N, Bourbeau D, Kowalski KE, DiMarco AF, Knutson JS. Phys Med Rehabil Clin N Am. 2019 May;30(2):301-318. doi: 10.1016/j.pmr.2018.12.011. Review.

⊙ A Three-Site Clinical Feasibility Study of a Flexible Functional Electrical Stimulation System to Support Functional Task Practice for Upper Limb Recovery in People With Stroke. Smith C, Sun M, Kenney L, Howard D, Luckie H, Waring K, Taylor P, Merson E, Finn S, Cotterill S. Front Neurol. 2019 Mar 20;10:227. doi: 10.3389/fneur.2019.00227. eCollection 2019.

⊙ User-centered practicability analysis of two identification strategies in electrode arrays for FES induced hand motion in early stroke rehabilitation. Salchow-Hömmen C, Jankowski N, Valtin M, Schönijahn L, Böttcher S, Dähne F, Schauer T. J Neuroeng Rehabil. 2018 Dec 29;15(1):123. doi: 10.1186/s12984-018-0460-1.

⊙ Bone changes in the lower limbs from participation in an FES rowing exercise program implemented within two years after traumatic spinal cord injury. Lambach RL, Stafford NE, Kolesar JA, Kiratli BJ, Creasey GH, Gibbons RS, Andrews BJ, Beaupre GS. J Spinal Cord Med. 2018 Nov 26:1-9. doi: 10.1080/10790268.2018.1544879.

⊙ A Novel FES Strategy for Poststroke Rehabilitation Based on the Natural Organization of Neuromuscular Control. Cheung VCK, Niu CM, Li S, Xie Q, Lan N. IEEE Rev Biomed Eng. 2019;12:154-167. doi: 10.1109/RBME.2018.2874132. Epub 2018 Oct 11.

⊙ The Effects of Electrical Stimulation Parameters in Managing Spasticity after Spinal Cord Injury: A Systematic Review. Bekhet AH, Bochkezanian V, Saab IM, Gorgey AS. Am J Phys Med Rehabil. 2018 Oct 8. doi: 10.1097/PHM.0000000000001064.

⊙ An Exploratory Electrical Stimulation Protocol in the Management of an Infant With Spina Bifida: A Case Report. Motavalli, G., McElroy, J. J., & Alon, G. Child Neurology Open 2019. doi.org/10.1177/2329048X19835656