

IEEE SMC 2022

WORKSHOP ON BRAIN-MACHINE INTERFACE SYSTEMS

October 9-12, Prague, Czech Republic



## CALL FOR PAPERS

### BMI WORKSHOP COMMITTEE

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The IEEE SMC **12th Workshop on Brain-Machine Interface (BMI) Systems** will be held from October 9-12 as part of SMC 2022, the flagship annual conference of the IEEE Systems, Man, and Cybernetics Society. The goal of the Workshop is to provide a forum for scientists to present research results, facilitate the interaction and intellectual exchange between researchers, developers and consumers of BMI technology. We invite contributions reporting the latest advances, innovations and applications in BMIs. The BMI Workshop is organized by the IEEE SMC Technical Committee on Brain-Machine Interface Systems. Participation is free to all registered SMC 2022 attendees.

### Call for Papers

We invite contributions reporting the latest advances, innovations, and applications in all fields related to BMI, including new neuroimaging modalities and sensor technologies, interfaces, protocols, signal enhancement and multimodal fusion, integration of BMIs with virtual/augmented reality, affective BMI, hybrid BMI, deep learning for BMI, neurorehabilitation, serious gaming, and emerging applications. These topics offer tremendous opportunity for collaborative and multi-disciplinary research, involving not only peers with expertise in the field of BMI and other neurotechnologies, but also those with expertise in systems engineering, human-machine systems, cybernetics, neuroscience, robotics, and artificial intelligence, to name a few. The four-day Workshop will feature a series of **panels**, a **BR41N.IO brain-computer interface hackathon**, prominent **invited industry/academia speakers**, presented **contributed papers**, and the **ceremony of the International 2022 BCI Award**.

This is the seventh year that the IEEE SMC BMI Workshop will host a **BR41N.IO Brain-Computer Interface Hackathon** with several cash prizes. The BCI Hackathon is a brainstorming and collaborative marathon designed to rapidly produce fully functional BCI prototypes with team members spread out across the globe. The Hackathon will take place on October 9-10; participation is free for all SMC 2022 attendees. Learn more about the IEEE SMC 2022 BCI Hackathon projects and teams, how to form/join one, and how to register at <https://www.br41n.io/IEEE-SMC-2022>.

Make sure to submit your BCI project to the BCI Award 2022. You just need a 2-page description of your work and a short video showing your BCI research and projects. **Submission deadline is 1<sup>st</sup> of September 2022**. Further information can be found here: [www.bci-award.com](http://www.bci-award.com)

### Important Dates

**Full paper submissions due:** April 15, 2022

**Notification of full paper acceptance:** May 27, 2022

**Final manuscript due:** July 2, 2022

**Conference website:** [http://musaelab.ca/bmi22/smc2022\\_bmi.html](http://musaelab.ca/bmi22/smc2022_bmi.html)

### Notes

- Author instructions, paper templates, and paper submission details for **full papers** are available at <https://ieeesmc2022.org/call-for-papers>.
- Top **full papers** will be invited to submit extended versions of their work to a special issue of the IEEE Transactions on Human-Machine Systems dedicated to the BMI Workshop.
- Accepted **full papers** not presented at SMC 2022 will be excluded from IEEEExplore.