Call for Contributions
1. Inform the Chair: with the Title of your Contribution
2. Submission URL:
https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=COGNITIVE+2018+Special
Please select Track Preference as **BRAINCOMAUG**

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Special track
BRAINCOMAUG: Brain Computer Interface for Improving Cognition

Chair and coordinator: Dr. Jayfus T. Doswell, The Juxtopia Group, JUICE-Lab, USA,
jayfus@juxtopia.com

along with

COGNITIVE 2018, The Tenth International Conference on Advanced Cognitive Technologies and Applications
http://www.iaria.org/conferences2018/COGNITIVE18.html

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Brain Computer Interfaces (BCI) (i.e., also known as Brain Machine Interfaces) have the potential to improve human cognition ranging from implantable neuro-prosthesis to repair parts of the injured brain's hippocampus (i.e., to convert short-term memories into long-term memories); facilitate non-verbal communication among teams of peers; and restore active memories to accelerating human learning and skill acquisition with non-invasive neural-engineering and computational brain-to-human neuron mapping.

Although advances have been made in BCI for improving human cognition, this subset of BCI is new and requires continuous and empirical multidisciplinary research to solve challenges so that it may be applied to the real world. These challenges include, but are not limited to, Low BCI signal strength; Inaccurate signal classification; Machine learning of neuronal communication; Data transfer rate; High error rate; non-linearity, non-stationarity/noise, and high dimensionality; high dimensionality curse; noise removal; separability of multiple classes; linear discriminant analysis; support vector machine; and K nearest neighbors

Topics include, but not limited to:
- Frameworks for identifying and interpreting key the function(s) of brain areas
- System for identifying and interpreting types of signals used for decoding brain signals.
- Framework for delivering robust machine learning algorithms
- Systems for understanding the effect of feedback on robust control of BCI
- Process and systems for understanding the interaction of electrode and cortical tissue.
- Non-invasive wearables for facilitating data acquisition of brain signals.

Contribution Types
- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on www.iaria.org]
- Presentations: slide only [slide-deck posted on www.iaria.org]
- Demos: two pages [posted on www.iaria.org]

Important Datelines

- Inform the Chair: As soon as you decided to contribute
- Submission: Nov 3, 2017
- Notification: Dec 3, 2017
- Registration: Dec 17, 2017

- Camera ready: Jan 15, 2018

Note: These deadlines are somewhat flexible, providing arrangements are made ahead of time with the chair.

Paper Format
- See: http://www.iaria.org/format.html
- Before submission, please check and comply with the editorial rules: http://www.iaria.org/editorialrules.html

Publications
- Extended versions of selected papers will be published in IARIA Journals: http://www.iariajournals.org
- Print proceedings will be available via Curran Associates, Inc.: http://www.proceedings.com/9769.html
- Articles will be archived in the free access ThinkMind Digital Library: http://www.thinkmind.org

Paper Submission
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Registration
- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at http://www.iaria.org/registration.html

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