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# Intelligent System Application Technical Committee

#### Governance

Under the supervision and the coordination of the IEEE CIS Technical Activities Committee, The Intelligent Systems Applications Technical Committee (ISATC) is established to (1) to foster more effective transfer of computational intelligence technologies and higher levels of intelligence to large-scale applications important to humanity; (2) to foster greater feedback from the challenges encountered in these applications to the core research in computational intelligence; (3) to make it easier for researchers and corporations whose background is primarily in computational intelligence to increase their contributions in these areas; (4) to develop stronger two-way liaisons with other professional societies who support these goals, as well as with industry and governments.

# Membership

ISATC shall have a Chair, two Vice-Chairs and a number of Members. The Chair shall be appointed by the President of the Society in January. The ISATC Chair shall appoint two Vice-Chairs and a number of Members. The appointment of the TC Vice-Chairs and the TC Members needs to be approved by the Vice President for Technical Activities. TC Chairs, Vice-Chairs and committee members must all be IEEE CIS members. The number of TC Members should ideally be between 20 and 35, and not to exceed 40 in any given year. It may be necessary to limit the number of appointed new members to adhere to this requirement.

### **Appointment Information**

In addition to maintaining compliance with the IEEE governing documents, one of the more important aspect to consider when evaluating potential membership in a TC is ensuring that each TC will be able to work productively, positively and collaboratively together for the greater good of IEEE, IEEE CIS, and the larger community.

TC chairs will, as much as it is feasible, recruit a diverse and inclusive TC membership with respect to such factors as gender, geographical region, and professional affiliation (government, public sector, industry and academia), with a particular emphasis on the engagement of Under-Represented Groups. TC members are expected to be active in IEEE CIS with a reasonable track record of research, especially in IEEE CIS publications and conferences, relative to opportunity. The TC Chair may nominate active and competent researchers, government, public sector or industry representatives from areas outside of IEEE CIS in TCs where multi-disciplinary input is valuable. In all cases, the TC Chairs will use their professional judgement to make a decision on the nomination of TC members, considering, in particular, the key aspects in respect to membership listed above. TC Chairs may consider publicly available sources of relevant information such as academia-focused search engines, to inform their decision.

# **Committees Chairs and Members**

Current directory of Chairs and members: Intelligent Systems Applications Technical Committee Members (/technical-committees/intelligent-systems-applications-technical-committee/30-technical-committees/136-intelligent-system-application-members).

# **Funding**

Funding for the committee shall be provided by the CIS in the annual budget request. Once approved by the CIS ExCom and AdCom, funds will be available to support the ISATC activities. The Chair shall be responsible for the appropriate use of the approved funds with supporting documentation.

## **Activities**

The ISATC shall engage in various activities in order to advance the goals described above, including but not limited to the following:, participate in paper reviews and selection for CIS-sponsored conferences, nominate lecturers for the CIS distinguished speakers program, collaborate on production of tutorials, sponsor publication of books or CD-ROMs, and organize specialized focused workshops or meetings. Most of the activities of the ISATC shall be conducted through subcommittees, whose core activities will consist of: (1) strategic discussions, primarily by email and ad hoc discussions in person, about how to advance the ISATC goals within their specific domain; (2) acting as a clearing house to disseminate these discussions and other information as they deem appropriate, particularly via the ISATC web page; (3) where appropriate, support the ISATC input to other organization it acts as liaison to, such as the IEEEUSA Energy policy committee and the IEEE-USA Communications and Information Policy Committee. The ISATC will also work with the organizers of CIS-sponsored conferences to insure and maintain the technical excellence, and endeavor to provide technical and planning integration to the activities of the subcommittees, which it will appoint and oversee.

# Meetings

Meetings will be called by the Chair once or twice a year, usually in conjunction with the CIS AdCom meetings or as requested by the ISATC members. Sufficient advance notice of the meetings will be given to the members, as well as to other interested parties. The Chair shall prepare an agenda before the meeting, and shall prepare minutes for distribution after the meeting.

#### **Amendments**

This Charter becomes official after at least 2/3 core members present at The Committee Meeting approves it. Subsequent changes and amendments also require 2/3 majority vote.

#### Task Forces

- TF1: ISATC "Biometrics" (http://ewh.ieee.org/cmte/cistfbistc/index.html) Chair: Ajita Rattani, Wichita State University, ( (mailto:ajita.rattani@wichita.edu)ajita.rattani@wichita.edu). Vice Chair: Ruggero Donida Labati, Universiti degli Studi di Milano, (ruggero.donida@unimi.it (mailto:ruggero.donida@unimi.it))
- TF2: ISATC "Computational Audio Processing" (http://ieeeciscap.dii.univpm.it/) Chair: Emanuele Principi, Università Politecnica delle Marche, (e.principi@univpm.it (mailto:e.principi@univpm.it)); Vice Chairs: Björn Schuller, Imperial College (UK) and University of Passau (Germany); Aurelio Uncini, La Sapienza (Italy)
- TF3: ISATC "Computational Intelligence in the Energy Domain" (http://cs.adelaide.edu.au/~markus/CIS-TF-Energy/) Chair: Dr. Fernando Lezama (flz@isep.ipp.pt (mailto:flz@isep.ipp.pt)), (f.lezama.mx@ieee.org) (mailto:f.lezama.mx@ieee.org)), GECAD-Polytechnic of Porto; Vice Chair: Joao Soares, GECAD-Polytechnic of Porto (jan@isep.ipp.pt (mailto:jan@isep.ipp.pt)).
- TF4: ISATC "Hyper-heuristics" (https://sites.google.com/site/ieeetaskforceonhyperheurisitcs/home) Chair: Nelishia Pillay, University of Pretoria, (npillay@cs.up.ac.za (mailto:npillay@cs.up.ac.za)); Vice Chairs: Rong Qu, University of Nottingham.
- TF6: ISATC "Intelligent Network Systems" (http://rtliaw.csie.fju.edu.tw/IEEE\_CIS\_ISATC\_TF\_INS.html) Chair: Dr Rung-Tzuo Liaw Fu, Jen Catholic University, (rtliaw@csie.fju.edu.tw (mailto:rtliaw@csie.fju.edu.tw)); Vice Chairs: Chuan-Kang Ting, National Chung Cheng University, Taiwan, Email: (ckting@cs.ccu.edu.tw

(mailto:ckting@cs.ccu.edu.tw)); Shengxiang Yang, De Montfort University, UK, Email: (syang@dmu.ac.uk (mailto:syang@dmu.ac.uk)).

- TF7: ISATC "Evolutionary Deep Learning and Applications" (https://yn-sun.github.io/index.html) Chair: Yanan Sun, Sichuan University, China; Vice-Chairs: Andy Song, RMIT University, Australia; Colin G. Johnson, University of Kent, UK; Bing Xue, Victoria University of Wellington, NZ.
- TF8: ISATC "Robotics" (https://mikrolab.mogi.bme.hu/rtf.html) Chair: Dr. Janos Botzheim, Budapest University of Technology and Economics, Hungary, (dr.janos.botzheim@ieee.org) (mailto:dr.janos.botzheim@ieee.org)); Vice Chair: Dr. Chu Kiong Loo, University of Malaya, Malaysia, (ckloo.um@um.edu.my (mailto:ckloo.um@um.edu.my)).
- TF9: ISATC "Smart Grid" (http://rtpis.org/sgtf/) Chair: Komla Folly. Vice Chairs: Ganesh Kumar Venayagamoorthy, Clemson University, USA; Andrew Kusiak, University of Iowa, USA.
- TF10: ISATC "Security, Surveillance and Defense Applications" (http://www.ieeeottawa.ca/ci/ssdtf/) Chair:
  Prof Marco Cococcioni, Department of Information Engineering, University of Pisa,
  (m.cococcioni@gmail.com (mailto:m.cococcioni@gmail.com)); Vice Chair: James Keller, University of
  Missouri-Columbia, USA; Rafael Falcon, Larus Technologies, Canada.
- TF12: ISATC "Transfer Learning and Transfer Optimization" (https://homepages.ecs.vuw.ac.nz/~xuebing/IEEE/TF\_TransferLearning-TransferOptimization.html), Chair: Prof Bing Xue, Victoria University of Wellington, (bing.Xue@ecs.vuw.ac.nz (mailto:bing.Xue@ecs.vuw.ac.nz)); Vice Chairs: Liang Feng, Will Browne, Yew-soon Ong and Ivor Tsang.
- TF13: ISATC "Intelligent Systems for Health" (https://sites.google.com/view/ieee-cis-tf-ish) Chair: Dr. Cheng He, Southern University of Science and Technology, (chenghehust@gmail.com (mailto:chenghehust@gmail.com)); Vice Chairs: Amir Hussain and Rong Qu.
- TF14: ISATC "Intelligent Systems for Cybersecurity of IoT" (https://sites.google.com/view/zhen-ni/ieeetaskforce) Chair: Zhen Ni; Vice Chairs: Harith Al-Sahaf and G. Kumar Venayagamoorthy.
- (TF15: ISATC "Computational Intelligence for Industrial Process" (https://www.ctrl.cinvestav.mx/~yuw/isa\_ciip.htm) Chair: Wen Yu; Vice Chair: Jinliang Ding.

### **Technical Committees**

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Welcome from the Vice President for Technical Activities

**Technical Committee Appointment Information** 

Neural Networks Technical Committee (/technical-committees/neural-networks-technical-committee)

Fuzzy Systems Technical Committee (/technical-committees/fuzzy-systems-technical-committee)

Evolutionary Computation Technical Committee (/technical-committees/evolutionary-computation-technical-committee)

Cognitive and Developmental Systems Technical Committee (/technical-committees/cognitive-and-developmental-systems-technical-committee)

Emergent Technologies Technical Committee (/technical-committees/emergent-technologies-technical-committee)

Intelligent Systems Applications Technical Committee

Task Force TF1 on Biometrics

Bioinformatics and Bioengineering Technical Committee (/technical-committees/bioinformatics-and-bioengineering-technical-committee)

Computational Finance and Economics Technical Committee (/technical-committees/computational-finance-and-economics-technical-committee)

Data Mining and Big Data Analytics Technical Committee (/technical-committees/data-mining-and-big-data-analytics-technical-committee)

Games Technical Committee (/technical-committees/games-technical-committee)

ADP and Reinforcement Learning Technical Committee (/technical-committees/adp-and-reinforcement-learning-technical-committee)

Smart World Technical Committee (/technical-committees/smart-world-technical-committee)

Strategic Planning Sub-Committee

Task Force on Ethical and Social Implications of Computational Intelligence

Mentoring and Skills Development Sub-Committee (/technical-committees/mentoring-and-skills-development-sub-committee)