IEEE Systems, Man, and Cybernetics Society

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There is a motion to add VP for Education
SMC Fields of Interest

Development of systems engineering technology including problem definition methods, modelling, and simulation, methods of system experimentation, human factors engineering, data and methods, systems design techniques and test and evaluation methods.

Integration of the theories of communication, control, cybernetics, stochastics, optimization, and system structure towards the formulation of a general theory of systems.

Application at hardware and software levels to the analysis and design of biological, ecological, socio-economic, social service, computer information, and operational man-machine systems.
Technical Committees (TC)

The TCs are the foundation of the SMC Society's technical activities and are an essential resource to increase SMC Society membership.

There are:

22 TCs in the System Science Technical Area (Total Membership 814)
12 TCs in the Human Machine Systems Technical Area (Total Membership 613)
22 TCs in the Cybernetics Technical Area (Total Membership 876)
2. Conflict Resolution (11) | Liping Fang and Keith W. Hipel
3. Cyber-Physical Cloud Systems (29) | Huaglory Tianfield
4. Computer Supported Cognitive Work in Design | Maria Pia Fanti and MuDer Jeng
5. Distributed Intelligent Systems (48) | Vladimir Marik and Haibin Zhu
6. Enterprise Architecture and Engineering (33) | Alta van der Merwe and Aurona Gerber
7. Enterprise Information Systems (27) | Li Xu and Ming Yu
8. Grey Systems (71) | Sifeng Liu, Robin Qiu, Kun-Li Wen, Jeffrey Forrest, Renkuan Guo, Yingjie Yang, and Ni-Bin Chang
9. Homeland Security (23) | Francesco Flammini, Justin Zhan, Qiudan Li, and Chris Yang
10. Infrastructure Systems and Services (16) | Margot P. C. Weijnen
11. Intelligent Green Production Systems (21) | Hossam A. Gabbar
12. Intelligent Learning in Control Systems (26) | Ching-Chih Tsai, Kao-Shing Hwang, and Han-Xiong Li
## Systems Science and Engineering Technical Committees (814)

| 13. Intelligent Power and Energy Systems (13) | Loi Lei Lai and Kit Po Wong |
| 14. Intelligent Transportation Systems (18) | Bing-Fei Wu, Jau-Woei Perng, and Yo-Ping Huang |
| 15. Logistics Informatics and Industrial Security Systems (74) | Runtong Zhang, Menggang Li, Martin Dresner, and Zhenji Zhang |
| 16. Medical Mechatronics (74) | Ming-Yih Lee, Chung-Hsien Kuo, and Yi-Hung Liu |
| 17. Model-Based Systems Engineering (49) | Dov Dori and Azad M. Madni |
| 18. Robotics and Intelligent Sensing (17) | Saeid Nahavandi |
| 19. Service Systems and Organization (37) | Jian Chen |
| 20. System of Systems (14) | Mark A. Johnson, Mike Henshaw, and Ferat Sahin |
| 21. Systems Biology (26) | Luonan Chen |
| 22. Unmanned Marine Systems Engineering (17) | Ferial El-Hawary |
| Newest SSE TC | |
| 1. Biometrics and Applications | Robert Zhang, Yong Xu |
| 2. Brain Machine Interfaces | Ricardo Chavarriaga, Iñaki Iturrate, An Kai Keng, Heung-Il Suk |
| 5. Environmental Sensing, Networking and Decision Making | Mingcong Den, Hongnian Yu, Ni-Bin Chang, Mengchu Zhou |
| 6. Human Centered Transportation Systems | Takeshi Imamura, Koji Murai, Shubhangi Giripunje |
| 7. Human Computer Interaction | Greg Jamieson, Caroline Cao |
| 8. Human Perception in Multimedia Computing | Guillaume Lavoue, Tao Wang |
| 9. Information Systems for Design and Marketing | Katsutoshi Yada, Yi Zuo |
| 10. Interactive and Wearable Computing and Devices | Peter Liu, Giancarlo Fortino, Mehmet Rasit Yuce, Dongyi Chen |
| 11. Shared Control | Makoto Itoh, Erwin R. Boer, Tricia L. Gibo |
| 12. Visual Analytics and Communication | Weidong Huang, Yuhua Luo, Henry Duh |
### Cybernetics Technical Committees (814)

<table>
<thead>
<tr>
<th>Number</th>
<th>Committee Name</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Awareness Computing (60)</td>
<td>G. Chakraborty, T. Murata, Qiangfu Zhao, R. Kozma</td>
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<tr>
<td>2</td>
<td>Big Data Computing (13)</td>
<td>Václav Snášel, Ivan Zelinka, Michal Wozniak</td>
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<tr>
<td>3</td>
<td>Computational Collective Intelligence (32)</td>
<td>Ngoc Nguyen</td>
</tr>
<tr>
<td>4</td>
<td>Computational Cybernetics (129)</td>
<td>Philip Chen, Witold Pedrycz, Imre Rudas</td>
</tr>
<tr>
<td>5</td>
<td>Computational Intelligence (23)</td>
<td>Xizhao Wang, Wing Yin Ng</td>
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<tr>
<td>6</td>
<td>Computational Life Science (14)</td>
<td>Michael R. Berthold, Hong Yan, Daniel Yeung</td>
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<tr>
<td>7</td>
<td>Cybermatics for Cyber-enabled Worlds (34)</td>
<td>Jianhua Ma, L. T. Young, J. Burgeois, H. Ning</td>
</tr>
<tr>
<td>8</td>
<td>Cybernetics for Cyber-Physical Systems (42)</td>
<td>Shiyna Hu, Albert Y. Zomaya</td>
</tr>
<tr>
<td>9</td>
<td>Cybernetics for Intelligent Industrial Systems (40)</td>
<td>Pavel Vrba, Amro M. Farid, Thomas Strasser</td>
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<tr>
<td>10</td>
<td>Diagnostics &amp; Prognostics (19)</td>
<td>Imad Makki, Matthew Franchek, Karolos Grigoriadis</td>
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<td>11</td>
<td>Evolving Intelligent Systems (26)</td>
<td>Plamen Angelov</td>
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<tr>
<td>12</td>
<td>Granular Computing (19)</td>
<td>Shusaku Tsumoto, Tzung-Pei Hong, Leon Wang</td>
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<tr>
<td>13</td>
<td>Information Assurance &amp; Intelligent Multimedia (28)</td>
<td>Sos Agaian, Philip Chen, Aram Arakelyan</td>
</tr>
<tr>
<td>14</td>
<td>Intelligent Internet Systems (52)</td>
<td>John W. T. Lee, S.-M. Chen, T.-H. Tan, Yung-Fa Huang</td>
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<tr>
<td>15</td>
<td>Intelligent Vehicular Control Systems (20)</td>
<td>Jianbo Lu, Tim Gordon</td>
</tr>
<tr>
<td>16</td>
<td>Knowledge Acquisition in Intelligent Systems (41)</td>
<td>Stuart Rubin, Shu-Ching Chen</td>
</tr>
<tr>
<td>17</td>
<td>Machine Learning (22)</td>
<td>Daniel Yeung, Witold Pedrycz, Wing Yin Ng</td>
</tr>
<tr>
<td>18</td>
<td>Medical Informatics (24)</td>
<td>Yutaka Hata, Cathy M. Helgason</td>
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<tr>
<td>19</td>
<td>Pattern Recognition (10)</td>
<td>Yuan Yan Tang, Xinge You</td>
</tr>
<tr>
<td>20</td>
<td>Soft Computing (228)</td>
<td>Ajith Abraham, Mario Koeppen, Hideyuki Takagi</td>
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</tbody>
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2016 Recipients of the Most Active TC Award

Most Active Technical Committee Award in Systems Science and Engineering

IEEE SMC TC on Intelligent Power and Energy Systems
Chairs: Loi Lei Lai and Kit Po Wong

Most Active Technical Committee Award in Human-Machine Systems

IEEE SMC TC on Brain-Machine Interface Systems
Chairs: Michael H. Smith, Seong-Whan Lee, Vinod A Prasad, and Ricardo Chavarriaga

Most Active Technical Committee Award in Cybernetics

IEEE SMC TC on Computational Collective Intelligence
Chair: Ngoc Thanh Nguyen
IEEE SMC Society Publications

- Transactions on Systems, Man, and Cybernetics: Systems
- Transactions on Human-Machine Systems
- Transactions on Cybernetics
- Transactions on Computational Social Systems
- SMC Magazine
- SMC eNewsletter
IEEE SMC Society Conferences

Flagship Conference

IEEE International Conference on Systems, Man, and Cybernetics
October 05, 2017 - October 08, 2017
Banff, Canada
http://www.smc2017.org/

IEEE International Conference on Systems, Man, and Cybernetics
October 07, 2018 - October 10, 2018
Miyazaki, Japan
http://www.smc2018.org/
IEEE SMC Society Conferences

Upcoming Financially Co-Sponsored Conferences

2017 Conference on Evolving and Adaptive Intelligent Systems
May 31, 2017 - June 02, 2017
Ljubljana, Slovenia

14th IEEE International Conference on Networking, Sensing and Control
May 16, 2017 - May 18, 2017
Calabria, Italy

2017 IEEE 21st International Conference on Computer Supported Cooperative Work in Design
April 25, 2017 - April 27, 2017
Wellington, New Zealand
SSE-area Book Project


Published titles in IEEE/Wiley Series on Systems Science and Engineering, updated in Aug. 2015:

7. Li/Lu, Model-Based Robust Design for Complex Systems, 2014
8. Chang/Pires, Sustainable Solid Waste Management, 2015
SSE-area Book Project


12. Li/Zhou/Han, Advances in Battery Manufacturing, Service, and Management Systems, 2016

Forthcoming:

15. Li, Advances in Battery Manufacturing, Service, and Management Systems, Forthcoming

Call for Book Proposals can be found in the IEEE SMC Magazine
IEEE SMC 2017 Operational Plan

Systems Science and Engineering Technical Area
Goal: Enhance Society recognition as the leading society in the area of SSE

1.1 Strengthen and enhance the SSE area

1.1.1 Develop new TCs and revitalize our existing TCs
   1.1.1.1 Review common criteria for regular evaluating TCs and stress rules for closing of non-operating TCs
   1.1.1.2 Continue in the development of mechanisms for identifying potential new TCs
   1.1.1.3 Establish 2 new TCs according to the criteria seeking good coverage of topics

1.1.2 Increase TC involvement in all society activities (conferences, membership, and publications)
   1.1.2.1 Support revision of TC website format and content based on continuous experience
   1.1.2.2 Identify and implement TC website content
   1.1.2.3 Ensure regular refreshment of TC website content by TCs
   1.1.2.4 Continue the involvement of the Society in the ongoing Wiley book Series
   1.1.2.5 Continue to encourage webinars, conferences, and online tutorials
Goal: Enhance Society recognition as the leading society in the area of SSE

1.1.3 Attract new researchers in SSE area
   1.1.3.1 Develop and recommend new initiatives to increase the involvement of SSE membership
   1.1.3.2 Introduce awards such as a best Ph.D. dissertation award in the SSE area
   1.1.3.3 Attract new SSE leaders
   1.1.3.4 Attract new SSE leaders from Industry and Government
Questions or comments?

Possible collaboration opportunities?
Contact Information:

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