

# 2024 Annual Report (June 2023 – May 2024) Special Interest Group on AgriFood Electronics IEEE Circuits and Systems Society

Chairman: Victor Grimblatt Chair-Elect: Danilo Demarchi Secretary: Francois Rivet

### 1. Technical Committee/Special Interest Group Meeting(s)

The Electronics for Agrifood SIG was created in July 2021.

The meeting organized during the past reporting period is:

- 2023 IEEE International Symposium on Circuits and Systems (ISCAS 2023), Monterey, California, USA. Monday 22<sup>nd</sup> of May. 15 in-person and 19 remote attendees.

### 2. Voting Members

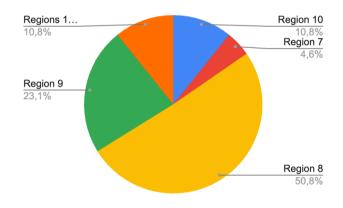
| FirstName       | LastName         | Affiliation                              | Email                             | IEEE<br>Grade    | IEEE Region                              |
|-----------------|------------------|--|-----------------------------------|------------------|--|
| Jalaja          |                  | Bangalore Institute<br>of Technology     | jalajas@ieee.org                  | Member           | Region 10 (Asia/Pacific)                 |
| George          | ARCHBOLD         | Universidad<br>Javeriana                 | george.archbold@ieee.org          | Member           | Region 9 (Central/South<br>America)      |
| Alfredo         | ARNAUD           | Universidad<br>Católica del<br>Uruguay   | alfrarnaud@gmail.com              | Senior<br>Member | Region 9 (Central/South<br>America)      |
| Andrea          | BONI             | University of<br>Parma                   | andrea.boni@unipr.it              | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Alper           | BOZKURT          | North Carolina<br>State University       | aybozkur@ncsu.edu                 | Senior<br>Member | Regions 1 – 6 (U.S.A.)                   |
| Davide          | BRUNELLI         | University of<br>Trento                  | davide.brunelli@unitn.it          | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Hugo            | BURGOS           | Universidad San<br>Francisco de Quito    | hburgos@usfq.edu.ec               | Member           | Region 9 (Central/South<br>America)      |
| Marco           | CARMINATI        | Politecnico di<br>Milano                 | marco1.carminati@polimi.it        | Senior<br>Member | Region 8 (Europe/Africa,<br>Middle East) |
| Mario           | CASU             | Politecnico di<br>Torino                 | mario.casu@polito.it              | Senior<br>Member | Region 8 (Europe/Africa,<br>Middle East) |
| Alfonso         | CHACON RODRIGUEZ | Tecnologico de<br>Costa Rica             | alchacon@tec.ac.cr                | Member           | Region 9 (Central/South<br>America)      |
| Zhongyang (ZY.) | CHENG            | Auburn University                        | chengzh@auburn.edu                | Member           | Regions 1 – 6 (U.S.A.)                   |
| Marcello        | COPPOLA          | ST Microelectonics                       | marcello.coppola@st.com           | No               | Region 8 (Europe/Africa,<br>Middle East) |
| Danilo          | DEMARCHI         | Politecnico di<br>Torino                 | danilo.demarchi@polito.it         | Senior<br>Member | Region 8 (Europe/Africa,<br>Middle East) |
| Tarek           | DJERAFI          | INRS                                     | tarek.djerafi@inrs.ca             | Senior<br>Member | Region 7 (Canada)                        |
| Franco          | FASSIO           | University of<br>Gastronomic<br>Sciences | <u>f.fassio@unisg.it</u>          | No               | Region 8 (Europe/Africa,<br>Middle East) |
| Paddy           | FENCH            | Delft university of<br>Technology        | p.j.french@tudelft.nl             | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Umberto         | GARLANDO         | Politecnico di<br>Torino                 | umberto.garlando@polito.it        | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Randall         | GEIGER           | Iowa State<br>University                 | <u>rlgeiger@iastate.edu</u>       | Member           | Regions 1 – 6 (U.S.A.)                   |
| Stefano         | GREGORI          | University of<br>Guelph                  | sgregori@uoguelph.ca              | Member           | Region 7 (Canada)                        |
| Victor          | GRIMBLATT        | Synopys                                  | victor.grimblatt@synopsys.c<br>om | Senior<br>Member | Region 9 (Central/South<br>America)      |
| Luc             | HEBRARD          | Univ. Strasbourg                         | luc.hebrard@unistra.fr            | Member           | Region 8 (Europe/Africa,<br>Middle East) |

| Pietro                    | IBBA                   | Free University of<br>Bolzano-Bozen                 | pietro.ibba@natec.unibz.it          | Member           | Region 8 (Europe/Africa,<br>Middle East) |
|---------------------------|------------------------|---|-------------------------------------|------------------|--|
| Arys                      | INDIRA<br>CARRASQUILLA | Tecnologico de<br>Costa Rica                        | acarrasquilla@tec.ac.cr             | Member           | Region 9 (Central/South<br>America)      |
| Alex                      | JAMES                  | Digital University<br>Kerala                        | apj@ieee.org                        | Member           | Region 10 (Asia/Pacific)                 |
| Colleen                   | JOSEPHSON              | University of<br>California, Santa<br>Cruz          | cjosephson@ucsc.edu                 | Member           | Regions 1 – 6 (U.S.A.)                   |
| Sakthidasan               | KALIDASAN              | University of Utah                                  | sakthidasan.kalidasan@uta<br>h.edu  | Member           | Regions 1 – 6 (U.S.A.)                   |
| Roberto                   | LA ROSA                | ST Microelectonics                                  | roberto.larosa@st.com               | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Daniel                    | LAI                    | Deakin University                                   | Daniel.Lai@deakin.edu.au            | Member           | Region 10 (Asia/Pacific)                 |
| Wei-Jen                   | LEE                    | The University of<br>Texas at Arlington             | wlee@uta.edu                        | Member           | Regions 1 – 6 (U.S.A.)                   |
| Morgan                    | MADEC                  | Univ. Strasbourg                                    | morgan.madec@unistra.fr             | No               | Region 8 (Europe/Africa,<br>Middle East) |
| Shubhankar                | MAJUMDAR               | National Institute of<br>Technology<br>Meghalaya    | shubuit@gmail.com                   | Senior<br>Member | Region 10 (Asia/Pacific)                 |
| Fidel                     | MAKATIA                | Kenyatta<br>University                              | fidelmakatia85@gmail.com            | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Shadrack                  | МАМВО                  | Walter Sisulu<br>University                         | smambo@wsu.ac.za                    | Senior<br>Member | Region 8 (Europe/Africa,<br>Middle East) |
| Ricardo-Franco            | MENDOZA-GARCIA         | ANCESTRAL<br>Technologies                           | franco@ancestraltech.com            | Member           | Region 9 (Central/South<br>America)      |
| Oswaldo                   | MENENDEZ               | Universidad<br>Andres Bello                         | oswaldo.menendez@unab.c<br>I        | No               | Region 9 (Central/South<br>America)      |
| Matias                    | MIGUEZ                 | Universidad<br>Católica del<br>Uruguay              | mmiguez@ucu.edu.uy                  | Member           | Region 9 (Central/South<br>America)      |
| Muhammad<br>Sarmad Shahab | MIR                    | Institutos<br>Madrileño de<br>Estudios<br>Avanzados | sarmad.mir@imdea.org                | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Paolo                     | MOTTO ROS              | Politecnico di<br>Torino                            | paolo.mottoros@polito.it            | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Carlos                    | MUÑOZ                  | Universidad de las<br>Frontera                      | carlos.munoz@ufrontera.cl           | Member           | Region 9 (Central/South<br>America)      |
| José                      | NACIF                  | Universidade<br>Federal de Viçosa                   | jnacif@ufv.br                       | Member           | Region 9 (Central/South<br>America)      |
| Temitope                  | ODEDEYI                | University College<br>London                        | t.odedeyi@ucl.ac.uk                 | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Stefano                   | OLCESE                 | Plug and Play<br>Tech Center                        | solcese92@gmail.com                 | No               | Region 8 (Europe/Africa,<br>Middle East) |
| Alvaro                    | PARDO                  | Universidad<br>Católica del<br>Uruguay              | apardo@ucu.edu.uy                   | Member           | Region 9 (Central/South<br>America)      |
| Charalampos               | PATSIANOTAKIS          | MACC  | cpatsianotakis@outlook.co<br>m.gr   | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Roberto                   | PERSIVALE              | GoMicro   | rpersivale@gmail.com                | No               | Region 9 (Central/South<br>America)      |
| Luisa                     | PETTI                  | Free University of<br>Bolzano-Bozen                 | luisa.petti@unibz.it                | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| David                     | POLESE                 | Consiglio<br>Nazionale delle<br>Richerche           | david.polese@cnr.it                 | No               | Region 8 (Europe/Africa,<br>Middle East) |
| Renato                    | RIMOLO DONARIO         | Tecnologico de<br>Costa Rica                        | rrimolo@tec.ac.cr                   | Senior<br>Member | Region 9 (Central/South<br>America)      |
| Francois                  | RIVET                  | Univ. Bordeaux                                      | francois.rivet@ims-<br>bordeaux.fr  | Senior<br>Member | Region 8 (Europe/Africa,<br>Middle East) |
| Mohammad                  | RUSSEL                 | Dalian University<br>of Technology                  | mrussel@dlut.edu.cn                 | Senior<br>Member | Region 10 (Asia/Pacific)                 |
| Aberto                    | SANCHEZ                | Universidad San<br>Francisco de Quito               | asanchez@usfq.edu.ec                | Senior<br>Member | Region 9 (Central/South<br>America)      |
| Mihai                     | SANDULEANU             | Khalifa University<br>of Science and<br>Technology  | mihai.sanduleanu@ku.ac.ae           | Senior<br>Member | Region 8 (Europe/Africa,<br>Middle East) |
| Alessandro                | SANGINARIO             | Politecnico di<br>Torino                            | alessandro.sanginario@polit<br>o.it | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Emilio                    | SARDINI                | University of<br>Brescia                            | emilio.sardini@unibs.it             | Member           | Region 8 (Europe/Africa,<br>Middle East) |

| Mauro       | SERPELLONI   | University of<br>Brescia                          | mauro.serpelloni@unibs.it   | Member           | Region 8 (Europe/Africa,<br>Middle East) |
|-------------|--------------|---|-----------------------------|------------------|--|
| Lei         | SHU          | Nanjing<br>Agricultural<br>University             | lei.shu@qq.com              | Senior<br>Member | Region 10 (Asia/Pacific)                 |
| Marios      | SOPHOCLEOUS  | eBOS<br>Technologies Ltd &<br>Tel Aviv University | Marioss@ebos.com.cy         | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Julio       | TORRES-TELLO | University of<br>Saskatchewan                     | jwt804@usask.ca             | Member           | Region 7 (Canada)                        |
| Daniele     | TRINCHERO    | Politecnico di<br>Torino                          | daniele.trinchero@polito.it | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Jai Narayan | TRIPATHI     | Indian Institute of<br>Technology<br>Jodhpur      | jai@iitj.ac.in              | Member           | Region 10 (Asia/Pacific)                 |
| Maria       | TROCAN       | ISEP  | maria.trocan@isep.fr        | Member           | Region 8 (Europe/Africa,<br>Middle East) |
| Wilfried    | UHRING       | Univ. Strasbourg                                  | wilfried.uhring@unistra.fr  | No               | Region 8 (Europe/Africa,<br>Middle East) |
| Daoud       | URDU         | Wageningen<br>University &<br>Research            | daoud.urdu@wur.nl           | No               | Region 8 (Europe/Africa,<br>Middle East) |
| Marilyn     | WOLF         | University of<br>Nebraska                         | mwolf@unl.edu               | Life<br>Fellow   | Regions 1 – 6 (U.S.A.)                   |
| Sjaak       | WOLFERT      | Wageningen<br>University &<br>Research            | <u>sjaak.wolfert@wur.nl</u> | No               | Region 8 (Europe/Africa,<br>Middle East) |

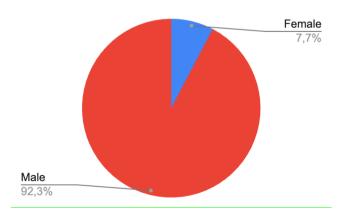
#### Geographical distribution of TC/SIG members (percentage of total)

|                                       | 2023   |
|---------------------------------------|--------|
| Total number of TCs                   | 65     |
| Regions 1 – 6 (U.S.A.)                | 10,77% |
| Region 7 (Canada)                     | 4,62%  |
| Region 8 (Europe/Africa, Middle East) | 50,77% |
| Region 9 (Central/South America)      | 23,08% |
| Region 10 (Asia/Pacific)              | 10,77% |



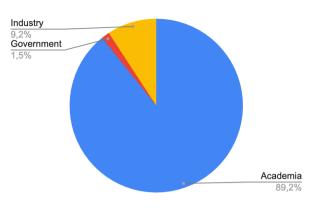
## Gender distribution of TC/SIG members (percentage of total)

|                     | 2023   |
|---------------------|--------|
| Total number of TCs | 65     |
| Male                | 92,31% |
| Female              | 7,69%  |



#### Distribution of TC/SIG members by affiliation (percentage of total)

|                     | 2023   |
|---------------------|--------|
| Total number of TCs | 65     |
| Academia            | 89,23% |
| Industry            | 9,23%  |
| Government          | 1,54%  |



## 3. Accomplished Technical Activities

## 3.1. IEEE Conference/Event organizations

Conferences and events financially sponsored by the CAS Society

| Your Name             | Conference Sponsors              | Conference/Event Title | Your Role             |
|-----------------------|----------------------------------|------------------------|-----------------------|
| Danilo DEMARCHI       | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | General Chair         |
| Victor GRIMBLATT      | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | General Chair         |
| Paolo MOTTO ROS       | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | Publication Chair     |
| Luisa PETTI           | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | Special Session Chair |
| Alessandro SANGINARIO | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | Special Session Chair |
| Victor GRIMBLATT      | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | Steering Committee    |
| Francois RIVET        | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | TPC Chair             |
| Matias MIGUEZ         | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | TPC Chair             |
| Temitope ODEDEYI      | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | TPC member            |
| Alfredo ARNAUD        | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | TPC member            |
| Jai Narayan TRIPATHI  | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | TPC member            |
| Aberto SANCHEZ        | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | TPC member            |
| George ARCHBOLD       | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | TPC member            |
| Marco CARMINATI       | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | TPC member            |
| Morgan MADEC          | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | Track Chair           |
| Umberto GARLANDO      | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | Track Chair           |
| Mario CASU            | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | Track co-Chair        |
| José NACIF            | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | Track co-Chair        |
| Marios SOPHOCLEOUS    | CASS, Sensor Council, IMS, CFRID | CAFE 2023              | Organizing Committee  |
| Marios SOPHOCLEOUS    | CASS, Sensor Council, IMS, CFRID | CAFE 2024              | General Chair         |
| Alex JAMES            | CASS                             | APCCAS 2023            | TPC Chair             |
| Jai Narayan TRIPATHI  | CASS                             | APCCAS 2023            | TPC member            |
| Francois RIVET        | CASS                             | ICECS 2023             | Steering Committee    |
| Morgan MADEC          | CASS                             | ICECS 2024             | Financial Chair       |

| Luc HEBRARD      | CASS | ICECS 2024              | Publication Chair     |
|------------------|------|-------------------------|-----------------------|
| Victor GRIMBLATT | CASS | EMC2 2023               | General Chair         |
| Victor GRIMBLATT | CASS | IEEE CASS Tour Region 9 | Organizing Committee  |
| Alfredo ARNAUD   | CASS | IEEE CASS Tour Region 9 | Organizing Committee  |
| Temitope ODEDEYI | CASS | ISCAS 2024              | Others                |
| Alex JAMES       | CASS | ISCAS 2024              | Special Session Chair |
| Victor GRIMBLATT | CASS | ISCAS 2024              | TPC Chair             |
| Alfredo ARNAUD   | CASS | ISCAS 2024              | TPC member            |
| Francois RIVET   | CASS | ISCAS 2024              | Tutorial Chair        |
| Alex JAMES       | CASS | ISICAS 2024             | TPC Chair             |
| Matias MIGUEZ    | CASS | LASCAS 2024             | General Chair         |
| Alfredo ARNAUD   | CASS | LASCAS 2024             | Special Session Chair |
| Francois RIVET   | CASS | LASCAS 2024             | Steering Committee    |
| Victor GRIMBLATT | CASS | LASCAS 2024             | Steering Committee    |
| Alfredo ARNAUD   | CASS | LASCAS 2024             | Steering Committee    |
| Alex JAMES       | CASS | MWCAS 2023              | Track Chair           |
| Luc HEBRARD      | CASS | NEWCAS 2023             | Steering Committee    |
| Marco CARMINATI  | CASS | NEWCAS 2023             | Awards Co-Chair       |
| Wilfried UHRING  | CASS | NEWCAS 2023             | Steering Committee    |
| Danilo DEMARCHI  | CASS | BioCAS 2023             | General Chair         |

Conferences and events technically sponsored by the CAS Society

| Your Name       | Conference Sponsors  | Conference/Event Title | Your Role   |
|-----------------|----------------------|------------------------|-------------|
| Marylin WOLF    | CASS                 | ESWeek                 | Co-founder  |
| José NACIF      | CASS                 | SBCCI 2023             | Track Chair |
| José NACIF      | CASS                 | SBCCI 2024             | TPC Chair   |
| Andrea BONI     | CASS                 | SMACD 2023             | TPC member  |
| Andrea BONI     | CASS                 | SMACD 2024             | TPC member  |
| Luc HEBRARD     | CASS, Sensor Council | IEEE Sensor 2023       | Others      |
| Davide BRUNELLI | CASS, Sensor Council | MetroAgriFor 2024      | TPC Chair   |

#### 3.2. IEEE Journal Editorships:

Journals sponsored by the CAS Society

| Your Name          | Journal Sponsors            | Journal Title | Your Role        |
|--------------------|-----------------------------|---------------|------------------|
| Danilo DEMARCHI    | CASS, Sensor Council, CFRID | TAFE          | Editor in chief  |
| Francois RIVET     | CASS, Sensor Council, CFRID | TAFE          | Associate editor |
| Davide BRUNELLI    | CASS, Sensor Council, CFRID | TAFE          | Associate editor |
| Luisa PETTI        | CASS, Sensor Council, CFRID | TAFE          | Associate editor |
| Mario CASU         | CASS, Sensor Council, CFRID | TAFE          | Associate editor |
| Roberto LA ROSA    | CASS, Sensor Council, CFRID | TAFE          | Associate editor |
| Marios SOPHOCLEOUS | CASS, Sensor Council, CFRID | TAFE          | Associate editor |

| Paolo MOTTO ROS    | CASS, Sensor Council, CFRID | TAFE                | Associate editor          |
|--------------------|-----------------------------|---------------------|---------------------------|
| Andrea BONI        | CASS, Sensor Council, CFRID | TAFE                | Associate editor          |
| Colleen JOSEPHSON  | CASS, Sensor Council, CFRID | TAFE                | Associate editor          |
| Matias MIGUEZ      | CASS, Sensor Council, CFRID | TAFE                | Associate editor          |
| Marco CARMINATI    | CASS, Sensor Council, CFRID | TAFE                | Associate editor          |
| George ARCHBOLD    | CASS, Sensor Council, CFRID | TAFE                | Reviewer                  |
| José NACIF         | CASS, Sensor Council, CFRID | TAFE                | Reviewer                  |
| Victor GRIMBLATT   | CASS, Sensor Council, CFRID | TAFE                | Steering committee        |
| Temitope ODEDEYI   | CASS, Sensor Council, CFRID | TAFE                | Others                    |
| Aberto SANCHEZ     | CASS, Sensor Council, CFRID | TAFE                | Others                    |
| Alex JAMES         | CASS                        | TCAS-I              | Associate editor          |
| Victor GRIMBLATT   | CASS                        | TCAS-I              | Associate editor          |
| Lei SHU            | CASS                        | TCAS-II             | Associate editor          |
| Mario CASU         | CASS                        | TCAS-II             | Guest editor              |
| Alex JAMES         | CASS                        | OJCAS               | Associate editor in chief |
| Alex JAMES         | CASS                        | TBioCAS             | Associate editor          |
| Paolo MOTTO ROS    | CASS                        | TBioCAS             | Associate editor          |
| Marco CARMINATI    | CASS                        | TBioCAS             | Associate editor          |
| Marilyn WOLF       | CASS                        | TVLSI               | Editor in chief           |
| Mohammad RUSSEL    | CASS, Sensor Council        | IEEE Sensor Journal | Associate editor          |
| Marios SOPHOCLEOUS | CASS, Sensor Council, IMS   | Sensors Letters     | Associate editor          |
| Marios SOPHOCLEOUS | CASS, Sensor Council, IMS   | Sensors Letters     | Review editor             |
|                    |                             |                     |                           |

## 3.3. Awards, Honors, and Recognition

| Your Name           | Awards / Honors / Recognition  | Period    |
|---------------------|--|-----------|
| Roberto LA ROSA     | Thomas Gessner Award   | 2023      |
| Alex JAMES          | IEEE CASS Outreach Award - Making CASS inclusive workshop series                 | 2023      |
| Alex JAMES          | IEEE CASS Educational Initiatives (5 courses)                                    | 2023      |
| Victor GRIMBLATT    | IEEE R9 Outstanding Engineer   | 2023      |
| Shubhankar MAJUMDAR | 2nd Runner Up in the 2023 IEEE DataPort Climate Change Dataset<br>Upload Contest | 2023      |
| Danilo DEMARCHI     | IEEE CAS Distinguished Lecturer  | 2023-2024 |
| Temitope ODEDEYI    | Royal Academy of Engineering Research Fellowship                                 | 2023-2025 |
| Alex JAMES          | IEEE CASS Distinguished Lecturer   | 2024-2025 |

#### 3.4. Keynote Speeches/Invited Talks:

| Your Name       | Invited by         | Event/Conference Title                                | Talk Title   | Date    |
|-----------------|--------------------|---|--|---------|
| Danilo DEMARCHI | Organisers         | Keynote/LASCAS 23                                     | Let the Plants Do the Talking: Smart Agriculture by the messages received from Plants and Soil | 06/2023 |
| Luisa PETTI     | MRS Spring 2023    | Invited talk  |  | 06/2023 |
| Davide BRUNELLI | STMicroelectronics | Invited talk  | Green technologies for Smart Agricuture  | 06/2023 |
| Sjaak WOLFERT   | IICA               | Semana de la Agricultura<br>Digital - invited Keynote | Digital Innovation in Agri-Food - An integrated<br>socio-economic and technological approach   | 06/2023 |
| Marco CARMINATI | Organisers         | Tutorial Speaker/ISCAS2023                            | Charge and Current Sensing Analog Design: from<br>Front-End to In-Sensor Machine Learning      | 06/2023 |

| Victor GRIMBLATT       | organisers                                | MPSoC23   | The Impact of Climate Change in Agriculture and<br>The Impact of Agriculture in Climate Change –<br>How electronics and tech. can help to mitigate it?         | 06/2023 |
|------------------------|---|---|--|---------|
| Colleen JOSEPHSON      | WAFE organizer                            | Workshop Agrifood<br>Electronics, WAFE 2023.  | IoT for Agribusiness.  | 06/2023 |
| Alfredo ARNAUD         | Universidad<br>Iberoamericana,<br>México  | Invited Talk,Workshop<br>agrifood& technology   | RFID & IoT for Agrifood  | 06/2023 |
| Victor GRIMBLATT       | EDS                                       | LAEDC 2023  | Agribusiness Impact on Climate Change and<br>Climate Change Impact on Agribusiness   | 07/2023 |
| Marcello COPPOLA       | organisers                                | MPSOC22   | Towards digital agriculture: applying the IIoT paradigm  | 07/2023 |
| Colleen JOSEPHSON      |   | UW CSE MSR Summer<br>Institute on Rural Computing   | Tale of Two Electrodes: Microbial Fuel Cells to<br>Power Sustainable Agriculture   | 08/2023 |
| Roberto LA ROSA        | Organisers                                | Invited talk / IEEE IAFE 2023   | Energy-Autonomous and Maintenance-Free<br>Wireless Systems in AgriFood Electronics:<br>Progress and Importance   | 09/2023 |
| Marcello COPPOLA       | Organisers                                | European Conference on<br>EDGE AI Technologies and<br>Applications – EEAI   | Energy Efficient Deep-Edge Computing through Hardware Machine Learning.  | 09/2023 |
| Victor GRIMBLATT       | SSIT                                      | ISTAS23   | IEEE Societies: Addressing Climate Change<br>Challenges  | 09/2023 |
| Victor GRIMBLATT       | SSCS                                      | ICs Addressing Societal Grand<br>Challenges: Sustainability and<br>Climate Change, Hosted By<br>IEEE Solid-State Circuits<br>Directions     | The Impact of Climate Change in Agriculture and<br>The Impact of Agriculture in Climate Change –<br>How electronics and technology can help to<br>mitigate it? | 09/2023 |
| Marcello COPPOLA       | organisers                                | IAFE Industry Forum (Industry for AgriFood Electronics)   | Al in AgriFood Electronics   | 09/2023 |
|                        |   | Keynote Speaker for John<br>McCarthy Al Summer School   | Sustainability, Agriculture and Technology:<br>Sensing Our Path to a Greener Future  | 09/2023 |
| Roberto LA ROSA        | Organisers                                | Inivited talk webinar:<br>3rd International Congress<br>From Plant Health To<br>Community<br>Health: How Smart Sensors<br>Can<br>Improve It | Improving Plant Health with<br>Smart Autonomous Sensors  | 10/2023 |
| Danilo DEMARCHI        | Organisers                                | Keynote/MetroAgriFor 23   | Let the Plants Do the Talking: Smart Agriculture by the messages received from Plants and Soil   | 11/2023 |
| Danilo DEMARCHI        | Organisers                                | Keynote/ASICON 2023   | Let the Plants Do the Talking: Smart Agriculture by<br>the messages received from Plants and Soil  | 11/2023 |
| Danilo DEMARCHI        | Organisers                                | Keynote/IEEE World Forum on<br>IoT 2023   | Let the Plants Do the Talking: Smart Agriculture by<br>the messages received from Plants and Soil  | 11/2023 |
| Danilo DEMARCHI        | Organisers                                | Keynote/OFCCT 2023  | Climate-Smart Agriculture for Food Security  | 11/2023 |
| Danilo DEMARCHI        | Organisers                                | Mini-Keynote/EMC2 2023  | Climate-Smart Agriculture for Environment Care   | 11/2023 |
| Mohammad RUSSEL        | Organisers                                | China University of<br>Geosciences,Beijing,China/Inv<br>ited talk   | Microwave sensor measurement system could be<br>a smart approach to monitoring the current<br>environmental challenge  | 11/2023 |
| Victor GRIMBLATT       | IEEE Colombia                             | C3 2023   | The Impact of Climate Change in Agriculture and<br>The Impact of Agriculture in Climate Change –<br>How electronics and technology can help to<br>mitigate it? | 11/2023 |
| Victor GRIMBLATT       | CASS                                      | EMC2 2023   | The Impact of Climate Change in Agriculture and<br>The Impact of Agriculture in Climate Change –<br>How electronics and technology can help to<br>mitigate it? | 11/2023 |
| Luisa PETTI            | Elfo winter school                        | Invited talk  | Sustainable sensors for a more sustainable world   | 12/2023 |
| Sjaak WOLFERT          | European<br>Commission                    | EU AGRI-Digital Conference -<br>Inspirational Speech  | Digitalisation for sustainability: policy support  | 12/2023 |
| Colleen JOSEPHSON      |   | UT Austin, Iowa State, UMass<br>Amherst   | Wireless communication and sensing for a greener future  | 12/2023 |
| Alfredo ARNAUD         | IEEE CASS Rio<br>Grande do Sul<br>Chapter | IEEE CASS RS Talks 2023   | IoT within the Agribusiness Industries   | 12/2023 |
| Mohammad RUSSEL        | Organisers                                | Howard University,<br>Washington D.C.,USA,/Invited<br>talk  | Towards the Green Sustainable Algae-Bacteria<br>combine approach to deal current water quality<br>challenges   | 02/2024 |
| Shubhankar<br>MAJUMDAR | Organisers                                | Faculty Development<br>Programme on "Advancement<br>in VLSI Design and its<br>Applications"   | Development of low power sensors for argiculture   | 02/2024 |

| Sjaak WOLFERT   | Organisers                     | IGLS Forum 2024 - Invited keynote | Digital innovation is not about technology but how<br>we organize it – design principles for digital<br>innovation ecosystems | 02/2024 |
|-----------------|--------------------------------|-----------------------------------|---|---------|
| Wilfried UHRING | Organisers                     | SPIE PHOTONICS EUROPE             | High-speed imaging, history and state of the art  | 04/2024 |
| Lei SHU         | Tropical Science<br>Foundation | Invited talk                      | Smart farming: Adoption of Solar Insecticidal<br>Lamps in the Tropics   | 04/2024 |
| Marilyn WOLF    | EPFL                           | Invited talk                      | AI for climate-smart agriculture  | 04/2024 |

# 3.5. Other distinguished IEEE services

| Your Name            | Organization   | Position/Activities  | Period       |
|----------------------|--|--|--------------|
| Lei SHU              | IEEE IES TC on Cloud and Wireless Systems for<br>Industrial Applications   | Chair  | 2021-2022    |
| Victor GRIMBLATT     | CAS BoG  | Member at Large  | 2021-2023    |
| Aberto SANCHEZ       | SC2023   | Chair  | 2022-2023    |
| Mohammad RUSSEL      | Ec Pharmocology and toxicology journal,UK                                  | Editorial board member                                       | Active       |
| Mohammad RUSSEL      | Endeavour Energy Ltd .,NewZealand  | Associate  | Active       |
| Alex JAMES           | IEEE CASS Kerala   | Execom and Advisor/Founding Chair                            | Active       |
| Lei SHU              | IEEE IES China Sitellite TC on Smart Agriculture and<br>Forestry           | Chair  | Active       |
| Lei SHU              | IEEE IES Nanjing Chapter   | Vice Chair   | Active       |
| Mario CASU           | IEEE NorCAS  | TPC member   | Active       |
| Marco CARMINATI      | IEEE NPSS Italy Chapter  | Secretary  | Active       |
| Mohammad RUSSEL      | IEEE Sensor Journal  | Associate editor   | Active       |
| Jai Narayan TRIPATHI | IEEE Transactions on Components, Packaging and<br>Manufacturing Technology | Associate Editor   | Active       |
| Jai Narayan TRIPATHI | IEEE Transactions on Signal and Power Integrity                            | Associate Editor   | Active       |
| Mohammad RUSSEL      | Iraqi Journal of Civil engineering   | Associate editor   | Active       |
| Marilyn WOLF         | Workshop on Machine Learning for CAD                                       | Steering committee   | Active       |
| Victor GRIMBLATT     | CAS Chile  | Chapter chair  | 2023         |
| Mauro SERPELLONI     | IEEE Metroind4,0   | General Chair  | 2023         |
| Alfredo ARNAUD       | IEEE R9, TEMS  | IEEE IoT&AI challenge (student<br>contest) steering committe | 2023         |
| Alfredo ARNAUD       | IEEE Uruguay Section   | Steering committee   | 2023-2024    |
| Aberto SANCHEZ       | R9 NoticlEEEro   | EiC  | 2023-2024    |
| Victor GRIMBLATT     | Special Issue on Sensors for Sustainable Future                            | Associate Editor   | 2023-2024    |
| Francois RIVET       | IEEE France Section  | VP Conferences   | 2023-2025    |
| Mario CASU           | Design Automation and Test in Europe (DATE)                                | Topic Chair  | 2023-present |
| Alex JAMES           | IEEE CASS DUK Branch   | Branch councellor  | 2023-present |
| Alex JAMES           | IEEE Consultants Network Kerala  | Vice Chair   | 2023-present |
| Alex JAMES           | IEEE CTSoC Machine learning, Deep learning and AI<br>in CE (MDA)           | Vice Chair   | 2023-present |
| Jai Narayan TRIPATHI | IEEE Electromagnetic Magazine  | Associate Editor   | 2023-present |
| Marilyn WOLF         | IEEE Transactions on CAD   | Associate Editor   | 2023-present |
| Shubhankar MAJUMDAR  | Opening of MTT Student Chapter Chair                                       | Faculty Incharge for Chapter Chair                           | 2023-present |
| George ARCHBOLD      | R9, IEEE CASS Colombian Caribbean Chapter                                  | Secretary  | 2023-present |
| Aberto SANCHEZ       | PSPB   | Board Member   | 2024         |
| Francois RIVET       | CAS BoG  | Member at Large  | 2024-2025    |
| Shubhankar MAJUMDAR  | Petition submitted for opening of CAS Student Chapter<br>Chair             | Faculty Incharge for Chapter Chair                           | 2024-present |

### 4. TC Significant Technical Leadership and Innovations

The 2 most significant activities in the past year are:

- 1. Organization of the 1<sup>st</sup> IEEE Conference on AgriFood Electronics (CAFE), Torino (Italy), 25-27 September 2023
  - a. 67 submissions
  - b. 40 papers accepted
  - c. 4 citations at March 2024
  - d. 75 attendees
  - 2. Organization of the CASIF Forum Industry for AgriFood Electronics (IAFE), Torino (Italy), 27 September 2023
    - a. 16 talks
    - b. 60 attendees

#### 5. New plans for the next year

The new initiatives planned for the next year are

- Special Issue in IEEE TAFE from papers of CAFE 2023 Conference,
- Special Issue in IEEE TAFE from papers of MetroAgriFor 2023 Conference
- Organization of CAFE 2024 in Xanthi (Greece), 26-28 September 2024
- Organization of IAFE 2024 in Xanthi (Greece), 28 September 2024
- Agribusiness CASIF in Colombia