IEEE IES Student and Young Professionals Activity Committee Report

ver. 2017-10-31

by

Chair of IEEE IES Student and Young Professionals Activity Committee

IEEE IES (S&YPs-AC)

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Warsaw University of Technology,

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Warsaw, Poland, 2017.

With co-operation with:

IES Officers and Volunteers
IEEE IES Students and Young Professionals Activity Committee - Activities Summary

I would like also to summarize (briefly) the IES S&YPs-AC based on some data collected since 2000. Of course, this is not possible to write about its activity in one year report but let tray to start the discussion. I have a feeling that we are approaching a new way of supporting interaction between students, YPs, Professors, and finally Well Experiences Industry Representatives.

First of all I have to mention that the activity has been started long time ago and my predecessors: Maria Inés Valla (FIEEE), Marco Liserre (FIEEE YPs), Mariusz Malinowski (FIEEE YPs) and

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Pedro Rodriguez (FIEEE YPs) introduced me for their excellent heritage in the field of S&YPs activities. I hope that in the future they will share with us experiences from their present point of view!

Now please have a look into some numbers presented in Tab. 1. It can be seen that even though the form and name of the young researchers support evaluate since last 17 years the idea remains the same.

I am sure that a lot of present IEEE YPs and IEEE Fellows (which can be also YPs in the same time) received the IEEE IES Paper Travel Awards e.g. myself at the IECON 2003 in Seville for my first paper in the field of Fuzzy Logic [1] or Ryogo Kubo Co-Chair of IEEE IES Student and Young Professionals Forum, Tutorial and Industry Link at the IECON 2015 in Yokohama or Christian Rojas as IECON 2011 [2].

If you have received this recognition, please let us know by e-mail to the gold.ies.ieee.chair@gmail.com. The IES S&YPs-AC is going to prepare some special publications related with this recognition.

From the Tab. 1 it can be seen also that after the IECON 2017 IES is going to distribute c. 550 IES-SYPAs! I would like to thank to all young researchers that there are active and they would like to share with others the results of their work.

Since 2016 the S&YPs-AC introduced some statistics to count also new members in the our Society with just joined us during the application for the IES-SYPA. The numbers are as follows: we have revived 225 applications in which c. 95 was from new just joined members whereas c. 100 has been supported by IES-SYPA.
Tab. 1. IEEE IES Student and Young Professionals Paper Assistance (IES-SYPA) statistics since 2000. Since 2016 the paper travel assistance for Authors has been increased to USD 2000.

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<tr>
<th>Year</th>
<th>ISIE</th>
<th>IECON</th>
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<th>ICM</th>
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<td><strong>TOTAL</strong></td>
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<td><strong>36</strong></td>
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The detailed information what has been done at IECON16, ISIE17, INDIN17, ICIT17, ICM17, CPE-POWERENG17 please refer to our publication in the IEM [3]-[5] presented in Appendix 4.
Industrial Electronics Community Set up on IEEE Collabratec

Dena Hoffman dena.hoffman@ieee.org just created the community on IEEE Collabratec and you can access it:


Moderators are:

- marek.turzynski@pg.gda.pl
- marek.jasinski@ieee.org
- hani.vahedi@ieee.org
IEEE IES S&YPs-AC – Plans – 7 steps for the future

Based on several discussion with IES President, IES Officers, IES Magazines and Transactions Editors in Chef, S&YPs-AC and also based on our last Membership Skype Meeting the following development programs is going to be implemented since 2018:

1. **IEEE IES S&YPs Tutorials and Industry Link - and another students and young professional activity at another (not only mains) IES conferences founds for Invited Speaker.**
   - Travel costs reimbursements up to USD 2000 per speaker.
   - The speaker for Tutorial should be from Academia.
   - The speaker for Industry Link should be selected from local Industry.

2. **Activate and increase the number IES Student Branch Chapters.**
   - Travel support for IES Volunteers to go for the S&YPs events and help with IES Student Branch Chapters opening.

3. **Next stage of the IES-SYPA competition - publication possibility in the IES Magazines and Transactions.**
   - In progress. Need to be disused at IECON17 before our meeting.

4. **More IES promotion at the conferences and workshops.**
   - Posters, T-shirt, Presentations and dedicated Workshops with co-operation with IES local Chapters (the best based on proven Workshops at the beginning).
   - Some funds for this is required. Should be determined after the first year of implementation. For the beginning IES should reserve for this up to USD 3000.

5. **Closer cooperation with IEEE YPs and YPs from others Societies.**
   - Meet-UPs, Workshops etc.
   - IEEE Young Professionals Society/Council Liaisons Summit. (IEEE HQ Celia Desmond)

6. **Student and YPs project competition (support students).**
   - Join IES and apply for financial support. The local IES Chapter and IES Student Branch Chapters support should be provided.

7. **New documentation for S&YPs-AC.**
   - Preparing documentation about the IES-SYPA rules during the selection process in addition to information distributed on-line at the ieee-ies.org. Some examples are in Appendix 1-3.
IEEE IES S&YPs-AC – Motion proposition

The budget of IES S&YPs-AC in 2017 was $120k.

For 2018 we would suggested this motion:

"Approve the allocation of $135k for student and YPs related activities including: student branch chapters support, students’ tutorials and industry link invited speakers, student and young professionals’ forums, student banquets, student and YPs committee travel support, other student and YPs recognitions and new student member recruitment."

References:


Sincerely yours,

Chair of IEEE IES SYProf Committee

Marek Jasinski (IEEE YProf)
Appendix 1 - Introduction to the IEEE IES Students and Young Professionals Activity Committee (S&YPs-AC)  Ver.20171021

S&YPs-AC’s people and roles

The Students and Young Professionals Activity Committee (S&YPs-AC) currently consists of:

- Chair of the IEEE IES Student and Young Professionals Activity Committee (S&YPs-AC):
  Marek Jasinski (marek.jasinski@ieee.org);

- Co-Chair of the S&YPs Forum:
  Christian Rojas (since 2018 c.a.rojas@ieee.org);
  Past Co-Chair Samir Kouro (samir.kouro@usm.cl);

- Co-Chair of S&YPs Members activities, Cooperation with Web and Information Committee:
  Marek Turzynski (marek.turzynski@pg.edu.pl);

- Co-Chair of a S&YPs Tutorial+Industry Link and Banquet;
  Dmitri Vinnikov (dmitri.vinnikov@ieee.org);

- Co-Chair of the three minutes’ speeches (3Ms)+movies, e-promotion and exhibition:
  Hani Vahedi (hani.vahedi@ieee.org);

- Co-Chair of the Student Branch and Student Branch Technical Chapters activity:
  Adam Milczarek (adam.milczarek@ee.pw.edu.pl).
  Hong Li (hli@bitu.edu.cn) – are joining us since the IECON 17.

- Past Senior Chairs of the S&YPs-AC:
  María Inés Valla (m.i.valla@ieee.org);
  Marco Liserre (ml@tf.uni-kiel.de);
  Mariusz Malinowski (malin@isep.pw.edu.pl);
  Pedro Rodriguez (prodriguez@uloyola.es).
Appendix 2 - IEEE IES Students and Young Professionals Activity Committee Activities Program for the Conferences (ver20171017)

The IEEE IES *Students and Young Professionals Activity Committee (S&YPs-AC)* would like to introduce a project of scientific and social Activities Program for the next year.

The offer is focused, but not limited to the IEEE Students and Young Professionals (S&YPs). Our support indirectly can help Supervisors, Mentors and Professors that would like to promote interesting work of their younger colleagues. Mentors can support their mentee not only by co-authoring scientific papers but also by advising them to join the IEEE IES to be able to attend IES conferences. The support can be divided into the following main point of cooperation:

A flagship program is:

1. **The IES Student Paper and Travel Assistance (IES SPTA).**
   Since the next year, a new name of this type of support is going to be implemented: the **IES S&YPs Paper Assistance (IES-SYPA)**.

   The rules generally remains the same but in addition, Young Professionals are going to be supported. Moreover, the distance to the conference is going to be taken into account as one of the coefficient during the selection process.

   The goal of the IES-SYPA is to financially support the travel for the IEEE IES Students and Young Professionals to attend the conference. The number and rules of the IES-SYPA can be found at the IEEE IES Internet platforms [1]-[4].

   To apply for the **IES-SYPA**, please go to the IES Manuscript Submission System provided by the Chairman of supported conference. The list of the conference can be found at IEEE IES website [1]. Generally it is simple. If your paper will be accepted and if at least one co-author is an IEEE IES Student or YPs Member, you will be able to apply for the assistance [1].

   Important note: IES Students and Young Professionals’ from the IES Student & Young Professionals Forum (IES-SF) have priority in the competition for **IES-SYPA**.
When S&YPs finally reach an IES conference, they may have an opportunity to take a part in:

2. S&YPs scientific and social activities during the conference.

Generally, the conference Chairs with the IES are going to prepare the following activities, but please note that these may change closer to the conference date and depends on the conference. All information should be available on the conference website and in the conference proceedings:

1.1. Student & Young Professionals Forum Day

According to the General Chair of the conference whiling and needs, the conference may offer:


  Where Mentors and YPs from an Academia and from an Industry are trying to show the link between each other.

- A S&YPs Forum (IES-SF).

  Where the S&YPs presentations could be oral and/or poster and/or 3-minute talks. The form and timing of presentations is dependent on a conference. Here some competition is between scientists are planned.

- Student & Young Professionals Banquet.

  During this Reception usually, IES Officers including the IES President distribute S&YPs Forum Best Paper & Presentation Recognition diplomas, sponsored by IEEE IES.

After the scientific and social experiences, the IES-SYPA Awardees will have an opportunity to promote their projects additionally within:

1.2. The Conference Gala Dinner Day

- IES S&YPs Paper Assistance (IES-SYPA) 3 minute presentations with movie (3Ms).

  Timing and place of this event will be announced on the conference website and in the conference proceedings. At least two weeks prior the conference all supported S&YPs by the IES-SYPA have to publish their project summary in the form of 3Ms on IEEE IES YouTube and Facebook [2]-[4].

- Diplomas ceremony of the IES-SYPA.

  Timing and place of the IES-SYPA ceremony will be announced on the conference website and in the conference proceedings. Usually the IES-SYPA diplomas are given to the
S&YPs during the Conference Gala Dinner by IES Official Representatives including IES President.

This is just a short massage for you to promote this idea between IES Members and IES Future Members. More details about the Student and Young Professionals activity can be found on the IEEE IES Internet platforms [1]-[3]. Some advice on how to prepare presentation (3-minute speech with three-minute video) can be found through this links [2]-[4].

This text should be added by all IES conferences supported by IES:

"IEEE IES Student and Young Professionals Activities Program

The program offers assistance, activities and opportunities for engineering students and young professionals (S&YPs) to present their R&D work in Industrial Electronics, and to help them develop networking connections. See more information on IES electronics channels.

""

References:

[8] https://www.youtube.com/channel/UCkg8GNliQ-icXE56AXosGg .
[10] Industrial Electronics Magazine, Introducing the IEEE Industrial Electronics Society Students and Young Professionals Activity Committee [Students and Young Professional News], Marek Jasinski, Publication Year: 2016, age(s):71 - 73

On behalf of the IEEE IES:

The VP-Membership Activities Yousef Ibrahim,
The VP-Conferences Activities Juan J. Rodriguez-Andina,
The President Kamal Al-Haddad, the President Elect Xinghuo Yu, and Treasurer Terry Martin,
The Chair of the Web and Information Committee, Andres A. Nogueiras Melendez, and Founder, Aleksander Malinowski.

Sincerely yours,
The Chair of the IEEE IES S&YPs-AC
Marek Jasinski (IEEE YPs)
Appendix 3 - How to apply for: The IEEE IES S&YPs Paper Assistance (IES-SYPA) at selected IEEE IES Conferences (ver20171019)

The IEEE IES Web & Information Committee (WIC) with the Students and Young Professionals Activity Committee (S&YPs-AC) would like to introduce a draft of manual how to apply for the IEEE IES S&YPs Paper Assistance (IES-SYPA) at selected IEEE IES Conferences.

The offer is focused, but not limited to the IEEE Students and Young Professionals (S&YPs). Our support can indirectly help Supervisors, Mentors and Professors that would like to promote interesting work of their younger colleagues. Mentors can support their mentee not only by co-authoring scientific papers but also by advising them to join the IEEE IES to be able to attend the IEEE IES conferences.

1. The applications for the IES-SYPA are collected by the Manuscript Submission System (MSS) of the IEEE IES (Fig. 1) [1]. At least one co-Author should be IEEE, IES, Student or YPs Member.

![Manuscript Submission System Test Area](image)

**Figure 1 The Manuscript Submission System (MSS) of the IEEE IES [1] (Attention: based on TEST example!).**

2. During submission, the applicant should check the Student box in Fig.2. It should be noted that even the YPs should check this box to see the application button in next section.

3. The Applicant for the IES-SYPA has to be the **IEEE IES Student and/or YPs active member**. In this case, when conference registration and final version of the manuscript is submitted, the button for application shall be activated (Fig.2b).

4. The deadline for the IES-SYPA application is **two weeks after paper acceptance announcement**[2].

5. Applicants who are selected for the IEEE IES-SYPA should post their 3 minutes’ video on the associated IEEE IES Facebook event page and the IEEE IES YouTube channel [3], [4].

6. The selected students of the IEEE IES-SYPA must follow the guidelines according to the video preparation and publications [5].

7. The selected students of the IEEE IES-SYPA must present the 3 minutes speech and the prepared video at the conference by themselves during the IEEE IES S&YPs 3 min Forum.
b) Then after the successfully reviews:

Figure 2 The possibility for the IES-SYPA application is available if an Author is the IEEE IES Student and/or YPs active member. In this case, when conference registration and final version of the manuscript is submitted, the button for application shall be activated.

References:

[15] https://www.youtube.com/channel/UCKg8GNii0Q-icXE56AXosGg

On behalf of the IEEE IES:
The VP-Membership Activities Yousef Ibrahim,
The VP-Conferences Activities Juan J. Rodriguez-Andina,
The President Kamal Al-Haddad, the President Elect Xinghuo Yu, and Treasurer Terry Martin,
Sincerely yours,
The Chair of the WIC, Andres A. Nogueiras Melendez, and Aleksander Malinowski, and
The Chair of the IEEE IES S&YPs-AC
Marek Jasinski
Appendix 4 – IEEE Industrial Electronics Magazine publications in 2017
IECON 2016 Summary

The year 2016 has passed, so now is a time to summarize the old year and provide some new information for this new year 2017. But before recapitulating the past year (in the next issue of IEEE Industrial Electronics Magazine), please allow me to focus just a bit on the 42nd Annual Conference of the IEEE Industrial Electronics Society (IECON), chaired by Carlo Cecati, Yousef Ibrahim, and Bogdan M. Wilemski. It was held 24–27 October 2016 in the Palazzo dei Congressi, Piazza Adua, in beautiful Firenze (Florence), Italy. The Students and Young Professionals Activity (S&YPA) Committee was extremely active and provided its highest level of support during the time of the IECON, which is the IEEE Industrial Electronics Society’s (IES) flagship conference and its most important event of the year. There were 82 applicants for the IES Student Paper Travel Assistance (SPTA), and we supported the 13 best. An example of the IES SPTA diploma appears in Figure 1.

The list of the students we supported can be found in Table 1. Please note that applicants from the Student Forum (SF) technical track were given priority over students from the regular technical tracks and the IECON and IEEE International Symposium on Industrial Electronics (ISIC) special sessions. So if you would like to improve your chances in the next IES SPTA competition, please select the SF technical track for your project. But you still have to take into account that the level of manuscript submitted to the SF is very high, and the competition for IES SPTA will not be easy.

The SF was organized at the beginning of IECON 2016 in two parallel oral sessions. A presentation example is shown in Figure 2, where Han Yu introduces her project. During the SF, two Best Paper and Presentation Recognition Awards were given to Sameer Arora and Han Yu. There is an example of the diploma in Figure 3. The IES supports the travel for selected students and then, during the conference’s SF technical session, selects the best two student projects. Usually, the IES SPTA diplomas are presented during the conference gala dinner. The Italian-style dinner during the IECON 2016 was outstanding. The food was delicious and the dancing excellent.

Very important for all students were the 3-min technical session presentations (3TPs) with films about the awarded projects running in the background instead of classical PowerPoint presentations. All IES SPTA awardees had to present their paper during the special 3TP session. Additionally, each 3-min talk and project film was displayed in the IECON 2016 main atrium (Figure 4). To see all the films presented at IECON 2016, please go to https://www.facebook.com/events/139273556473308/?active_tab=timeline discussion. These films can also be found on the YouTube IEEE IES Channel (https://www.youtube.com/channel/UCkg8GNt69Q-1eX556AXosGg). If you would like to keep up to date, please subscribe to our channel to follow our activity and learn more about student projects.
2017 Activities
The IES has allocated 44 SPTAs of up to US$2,000 each for the 2017 conferences. When a large number of applicants obtain a high score, the committee can reduce the travel assistance to US$1,000 per applicant. This exceptional measure is meant to support the travel of a greater number of excellent applicants. On the other hand, the number of IES SPTAs for IECON or other conferences could be increased to follow the need, within budget capability. IES conferences where student travel grants are planned to be distributed are the IEE International Conference on Mechatronics, IEEE International Conference on Industrial Technology, BIE, IEEE International Conference on Industrial Infomatics, IEEE International Conference on Emerging Technologies and Factory Automation, IEEE International Conference on Compatibility, Power Electronics and Power Engineering, IEEE International Power Electronics and Motion Control Conference, and IECON. Please visit ieee-ies.org to learn more.

To not miss any action, follow us on Facebook and YouTube. Also, join IEEE Collabratec to learn how to publish a good scientific paper.

FIGURE 2 – A presentation at the SF session 1. Speaking is Han Yu, and SF Cochair Marek Jasiński is seated.

FIGURE 3 – An SF Best Paper and Presentation Recognition Award diploma.
in large-scale turbines, but it has achieved better success in medium and small-size devices, in the H-rotor and helical blade designs.

Until 1970, the standard generator was a squirrel-cage induction machine coupled with a multistage gearbox driven by aerodynamically controlled wind turbines to give a fixed speed system. In the 1970s, a major change derived from the advancements in power electronics that allowed variable speed systems to be developed. Two approaches have emerged: 1) a multistage gearbox with a doubly fed induction generator coupled to a small back-to-back power converter in the rotor circuit, and 2) a direct-drive low-speed synchronous machine coupled to a fully rated power electronic converter. These architectures have resulted in much more versatile wind generators that can provide the needed reactive power and frequency support in addition to active power. Recently, technology development has resulted in turbines in the class of 8 MW boiling that a substantial contribution to a carbon-free energy future will be blown in wind.

References
[17] President—why the windmill was built.html
The Students and Young Professionals Activity Committee of the IEEE Industrial Electronics Society (IES) offers financial support to IES student members to attend IES conferences. We have preallocated 54 IES Student Paper Travel Assistance (IES SPTA) grants, at up to US$2,000 each, for conferences in 2017. It should be noted that, in the case of a large number of high-scoring applicants, the committee can reduce the travel assistance amount to US$1,000 per applicant. This exceptional measure is meant to support the travel of a larger number of excellent applicants. On the other hand, the number of IES SPTAs for the Annual Conference of the IES (IECON) and other conferences could be increased to help supplement these grants within the budget constraints.

In March 2017, at the IEEE International Conference on Industrial Technology (ICIT), the number of IES SPTA grants was actually increased from five to 15! This year, the IEEE International Conference on Mechatronics (ICM) was supported for the first time (Figure 1). Other IEEE IES conferences where student travel awards are planned for distribution are the IEEE International Symposium on Industrial Informatics (ISII); IEEE International Conference on Industrial Electronics (ISIE); Emerging Technologies and Factory Automation (ETFA); IEEE International Conference on Power Engineering, Energy, and Electrical Drives and IEEE International Conference on Compatibility, Power Electronics, and Power Engineering (CPE-POWERENG); IEEE International Power Electronics and Motion Control Conference (PEMC); and IECON (Table 1). In 2018, the IES is planning to support yet more activities for students and young professionals.

The following students and young professionals were selected to receive support:

**ICM 2017**
- Sayed Royel, University of Technology, Sydney, Australia, “Frequency Shaped Sliding Mode Control of Magnetorheological Smart Structure Systems”
- paper coauthored by Quang Ha
- Wahyono Wahyono, University of Ulsan, South Korea, “A Fuzzy Model-Based Integration Framework for Vision-Based Intelligent Surveillance Systems”
- paper coauthored by Alexander Filonenko, Laksono Kumanggoro, and Kang-Hyun Jo

**ICIT 2017**
- Ye Wang, Texas A&M University, College Station, “Combining Convolutional Neural Network and Self-Adaptive Algorithm to Defeat Synthetic Multi-Digit Text-Based CAPTCHA”
- paper coauthored by Yuanjiang Huang, Wu Zheng, Zhi Zhou, Debin Liu, and Mi Lu
- Hao Li, National Active Distribution Network Technology Research Center, Beijing Jiaotong University, China, “An Analysis on Plug-In Electric Vehicle’s Operating Cost...”

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**Figure 1** - ICM 2017: students, young professionals, and mentors at the IES SPTA ceremony and gala dinner.
TABLE I – IES CONFERENCES SUPPORTED BY IES SPTA GRANTS IN 2017.

<table>
<thead>
<tr>
<th>CONFERENCES IN 2017 SUPPORTED BY THE IEEE IES SPTA PROGRAM</th>
<th>NUMBER OF IES SPTA GRANTS PLANNED</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 INDIN To be announced 24–26 July 2017</td>
<td>3</td>
</tr>
<tr>
<td>7 IEEE EMPC</td>
<td>2</td>
</tr>
<tr>
<td>Total IES SPTA grants</td>
<td>54</td>
</tr>
</tbody>
</table>

Considering Cost of Battery Capacity Degradation; paper coauthored by Su Su, Luobin He, and Wenzhong Gao.


Amir Ahadi, Memorial University of Newfoundland, St. John’s, Canada, “Probabilistic Reliability Evaluation for Power Systems with High Penetration of Renewable Power Generation”; paper coauthored by Syed Enam Reza and Xiaodong Liang.


Ivan Villamor, Tecnologico de Monterrey, Mexico, “Stator-Flux Oriented Sliding Mode Controller for DFIG with Variable Hysteresis Loop for Limiting Switch Frequency of Rotor-Side Power Converter”; paper coauthored by Antonio Rosales, Pedro Ponce, and Arturo Molina.


Olatunji Mumini Omose, Research Centre for Medical Robotics and Minimally Invasive Surgical Devices, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China, “A Geometric Solution for Inverse Kinematics of Redundant Teleoperated Surgical Snake Robots”; paper coauthored by Shifen Han, LingXue Ren, Nannan Zhang, and Lei Wang.

Mohamed Solmy, Egypt-Japan University of Science and Technology, Alexandria, Egypt, “Micro/Macro-Positioning Control of a Novel Contactless Active Robotic Joint Using Active Magnetic Bearing”; paper coauthored by Mohamed Pannal and Abdellahit Mohamed.

Hsuyoshi Muramatsu, Keio University, Japan, “A Circle Disturbance Observer Based on Spatial Periodicity for Circle Systems”; paper coauthored by Selichiro Katsura.

Mathew Regan, Muskoka, Toyohashi University of Technology, Japan, “Adaptive Nonlinear Sliding Mode Control with a Nonlinear Sliding Surface for Feed Drive Systems”; paper coauthored by Naoki Uchiyama and Da Dinh Bui.

CPE-POWERENG 2017


Md Shafullah, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, “Optimized Support Vector Machine and Wavelet Transform for...

(continued on page 74)
Design and, in particular, in partial and dynamic reconfiguration of digital systems and simulation platforms for digital communications.

Author Mario Dolev Valdes-Peña is an associate professor in the Department of Electronic Technology, University of Vigo, Spain. She has authored more than 120 journal and conference articles. Her research interests include the design of reconfigurable systems based on FPGAs applied to data acquisition and conditioning systems, signal processing, and wireless sensor networks for industrial applications.

FPGAs: Fundamentals, Advanced Features, and Applications in Industrial Electronics is a valuable textbook for all those who want to better comprehend FPGAs and their most recent evolutions to use them relevantly in industrial control systems.

—Eric Monmasson
Laboratory of Systems and Applications of Information and Energy Technologies, University of Cergy-Pontoise, France

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Students and Young Professionals News (continued from page 70)

- Distribution Grid Fault Location: paper coauthored by Muhammad Ijaz, M. A. Abido, and Z. Al-Hamoud (the diploma only, without financial support)
- Dr. Mattia Rossii, Politecnico di Milano, Italy, “Rotor Position Estimation in a Large Airgap Active Magnetic Bearing”; paper coauthored by Marco Mauri, Maria Sofia Carmeli, Francesco Castelli-Dezza, and Francesco Braghin
- Ayman Ayad, Technical University of Munich, Germany, “Distributed Model Predictive Control of Bidirectional Quasi-Z-Source Inverters for PMSM Drives”; paper coauthored by Petros Karamanakos, Ralph Kennel, and Jose Rodriguez
- Victor Arredondo, Universidad Tecnica Federico Santa Maria, Chile, “Capacitor Voltage Ripple Control based on Decoupled Power Analysis in Modular Multilevel Converters”; paper coauthored by Marcelo A. Perez and Jose R. Espinosa.

Please visit our IES Facebook [2] and YouTube Channel [3] and select the best short movies prepared by the students and young professionals we are supporting.

References
[3] IES-IEEE Industrial Electronics Society. [Online]. Available: https://www.youtube.com/channel/UCk6fi5k0Q4aX36EAxwTg
The Students and Young Professionals Activity Committee

For the 2017 IEEE International Conference on Industrial Technology (ICIT) [1], General Chair Sheldon Williamson and Conference Secretary Janamejaya Chandrajegoda prepared an excellent event, during which students and Young Professionals (YPs) had a lot of support and fun. A total of 14 students were presented with the IEEE Industrial Electronics Society (IES) Student Paper Travel Assistance (SPTA) during the gala dinner (Figure 1). Moreover, six students were granted the Best Student Video Compilation award. All of the 3-min short films can be seen on the IES Facebook page under “Events” and “ICIT’17” [2] and on the IES YouTube channel [3].

To improve the quality of future submissions, the IES is preparing a new competition for all videos presented at IES SPTA. Hani Vahedi and Marek Jasinski, both YPs, with the cooperation of IES officers (some of them also YPs), are preparing a new publication, free IES memberships, and other ideas suggested by you!

If you have any suggestions about how to support students and YPs more efficiently, please let us know on the IES Facebook page or YouTube channel by leaving your comments under the IES competition videos already published. We would like to thank Mohammad Sleiman and Mathew penny Musikawa for their comments and feedback. Please let us know what you think and how we can support your professional activities. This is important, as the IES would like to support more researchers from different countries to give them the opportunity to improve even more. We are going to bring advanced technology to everyone!

Students and YPs Receive Support At the 2017 IEEE International Symposium on Industrial Electronics

- Marcos Metry, Texas A&M University, for “Model Predictive Control for Maximum Power Point Tracking of Quasi-Z-Source Inverter Based Grid-Tied Photovoltaic Power System”
- Jiao Jiao, Auburn University, Alabama, for “State Feedback Control for Single-Phase Grid-Connected Inverter Under Weak Grid”
- T. Himabindu, BITS Pilani Hyderabad Campus, India, for “Simplified Predictive Torque Control of an IM Drive with Efficient Zero Vector Placement”
- Kenji Ogawa, Keio University, Japan, for “Robust Force Control with a Novel Gain Tuning Methodology Based on the Stable Margin Theory”
- Yi Zhang, Aalborg University, Denmark, for “Precharge Strategies for Isolated Modular dc-dc Converters Under Two Different Start-Up Conditions”
- Ricardo Hernandez-Vidal, Universidad Tecnica Federico Santa Maria, Chile, for “Sub-Module Photovoltaic Microinverter with

FIGURE 1 – The IES-SPTA ceremony. The students and YPs enjoyed their time during the ICIT 2017 gala dinner.

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Date of publication: 31 September 2017
Cascaded Flybacks and Unfolding H-Bridge Inverter

Marjia Vujacic, University of Bologna, Italy, for "Evaluation of Voltage Ripple in Three-Phase PWM Voltage Source Inverters"

Stefan Feiser, TU Wien, Austria, for "Seamless Handover in Industrial WLAN using IEEE 802.11k"

Van-Binh Vu, Newcastle University, United Kingdom, for "A Multi-Output Capacitive Charger for Electric Vehicles"

Jialin Zhang, Beijing University of Technology, China, for "Indirect Modulation for Current Source PWM Converter."

At the 15th IEEE International Conference on Industrial Informatics

Vladimir Mironovich, ITMO University, Russia, for "Automatic Generation of Function Block Applications Using Evolutionary Algorithms: Initial Explorations"

Jose Thangachan, Indian Institute of Technology Roorkee, India, for "Solar Powered High Performance Switched Reluctance Motor for EV Applications"

Latha Karthiga Murugesan, University of Auckland, New Zealand, for "ECOx Energy Control System for Smart Homes."

Please watch the short films, like or dislike them, and give us your feedback. And remember, only constructive critiques! Please also visit our website at http://www.ieee-ies.org. We hope to see you at an IES conference or with you on a students and YP publication soon.

References


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Society News (continued from page 60)

The IEEE 2017 Industrial Electronics Society Awards in Edinburgh, Scotland

During the IEEE Industrial Electronics Society (IES) Administrative Committee meeting held in conjunction with the International Symposium on Industrial Electronics (ISIE) 2017 in Edinburgh, Scotland, the following individuals and groups were presented with prestigious IES awards:

- The IEEE IES A.J. Hornbeck Service Award: Carlo Cecati, for extraordinary editorial activity and innovation brought to IEEE Transactions on Industrial Electronics
- The IEEE Bimal Bose Award for Industrial Electronics Applications in Energy Systems: Jose Leon, for contributions on control and modulation techniques of high-power converters
- The Early Career Award: Akshay Rathore, for the development of low-voltage, high-current, and low-switching-frequency control of medium multilevel inverters in industrial drives
