IEEE Power Electronics Society Technical Committee on
Electrical Machines, Drives, and Automation
TC3 Meeting Minutes

Location:
Convention Center of Phoenix, Arizona, USA, Room 222B, Option: online via Webex platform.
Date:
Tuesday October 22nd, 2024.
Time:
09:00 a.m. -10:30 p.m.

Agenda
1. **Welcome and Introductions of Members**
2. **Approval of Minutes from APEC 2024 TC3 Meeting**
3. **New TC3 Leadership**
4. **Conference Updates**
   ▪ **PRECEDE 2025**
   ▪ **SDEMPED 2025**
   ▪ **SLED 2025**
   ▪ **IEMDC 2025**
   ▪ **ECCE 2025**
   ▪ **IDCD 2026**
   ▪ **IEMDC 2027**
5. **Call for Webinar Speakers and Workshops**
6. **Technical Achievement Award**
7. **Call for volunteers**
8. **Other business**
9. **Meeting Adjournment**

1. Welcome and Introductions of Members

Prof. Ali Bazzi, in the role of TC3 Chair, opened the meeting to order at 09:05 a.m. and welcomed all participants.   Then, all the participants in presence and connected online were invited to briefly introduce themselves.

2. Approval of Minutes from ECCE 2023 TC3 Meeting

Minutes of APEC 2024 TC3 meeting was electronically circulated among the members by the secretary prior to the ECCE 2024 meeting.   Additionally, a summary of the minutes was

presented during the meeting.   No comments or suggestions came from the attendees.   The motion for approval were moved by Prof. Antonio J. Marques Cardoso and seconded by Prof. Ralph Kennel.   Minutes were unanimously approved by voting members.

3.   New TC3 Leadership

The Chair introduced the recently elected PELS TC3 committee officers (Prof. Giacomo Scelba from the University of Catania as the Chair, and Prof. Stefano Nuzzo from the University of Modena Reggio Emilia as the Secretary.   The Vice Chair positions are currently vacant and will be appointed by the incoming Chair, whose term begins on January 1, 2025.

4.   Conference Updates

The Chair briefly introduced to the committee the conferences that are sponsored or co-sponsored by PELS, where the TC3 is mainly involved:

- **PRECEDE**: International Conference on Predictive Control of electrical Drives and Power Electronics.
- **SLED**: International Symposium on Sensorless control for Electrical Drives.
- **SDEMPED**: International Symposium on Diagnostics for Electrical Machines, Power Electronics and Drives.
- **IEMDC**: International Electrical Machines and Drives Conference.
- **ECCE2025**: IEEE Energy Conversion Congress & Expo.
- **IDCD 2026**: International Conference on Intelligent Design and Control of Automation and Drive Systems.

Members attending the meeting and interested in hosting one of those conferences in the future should first contact the conference steering committee. Then, they should reach out to the TC3, which will provide feedback and support for the candidature.

The brief introduction to the conferences was followed by the following updates:

- **PRECEDE 2025**: General Chair is Prof. Shihua Li from Southeast University, China. The conference will be held at Jinling Star Hotel close to the Southeast University, Nanjing, China, June 5-8, 2025.   Prof. Kennel presented information on the call for papers, an overview of the program, and the plenary speakers.
- **SDEMPED 2025**: Prof. Ali Bazzi is the General Chair of the event that will be held in Grapevine, Embassy Suites Hilton Dallas (TX, USA), in August 24-27, 2025.   During the meeting the General Chair illustrated the most recent update regarding the organization of this event, including details about the organizing team, the call for paper, the preliminary budget and the event location.   He also proposed a motion to approve a loan request of $20,000 from IEEE PELS, which is co-sponsoring 50% of the event. The motion for approval the loan from PELS was moved by Prof. Antonio J. Marques Cardoso and seconded by Prof. Fabio Giulii Capponi. The motion received unanimous approval.

- **SLED 2025**: The symposium will be held in August 15-17, 2025 in Sun Island Garden Hotel, Harbin, China. The General Chair is Prof. Gaolin Wang from the Harbin Inst. Technology, China. Prof. Zhiheng Lin provided information on the key dates, contact details, and preliminary budget. At the end of the presentation, the motion for budget approval were moved by Prof. Zhiheng Lin and seconded by Prof. Kennel. The motion passed with unanimous consent.

- **IEMDC2025**: Dr. Yao Duan from Toshiba is the General Chair of the event that will be held in Houston (TX, USA) in May 18-21, 2025. Dr. Duan illustrated the event and prospect of budget. Following the intervention, the first motion for approving the budget was proposed by Dr. Yao Duan and seconded by Dr. Selvaraj Goutham. The motion passed unanimously.

- **ECCE2025**: Prof. Jiangbiao He from the University of Tennessee, one of the Technical Program Chair of ECCE 2025, presented an overview of the next edition of the conference highlighting the location, important dates and organizing committee.

- **IDCD 2026**: The General Chair of the first edition, Prof. Ali Bazzi, presented the updates of the first TC3 flagship conference, the **International Conference on Intelligent Design and Control of Automation and Drive Systems** (**IDCD**). The topics of the flagship conference are as follows:

  - Intelligent control of electric drives (IM, PMSM, SRM, other machines) for efficiency, reliability, and fault-tolerance.
  - Inverter-fed machine design assisted with machine learning.
  - Automation coordination and intelligent control among multi-drive systems.
  - Robotic actuators, machines, and drives.

  The flagship conference will be held in even years with the first edition tentatively scheduled for April 2026, in Chicago, (IL, USA). Prof. Bazzi requested a motion to approve the budget, which was seconded by Prof. Giulii Capponi. The motion received unanimous approval.

- **IEMDC 2027**: Prof. Jiangbiao He, University of Tennessee at Knoxville is the General Chair of the event that will be held in Milwaukee (WI, USA) in May 17-20, 2027. The motion for approval the proposal of general chair and venue of IEMDC 2027 was moved by Prof. Mohamed Orabi and seconded by Prof. Ali Bazzi. The motion passed unanimously.

Prof. Bazzi encouraged members of TC3 to propose hosting for the following conferences:

- **PRECEDE 2027**.
- **SLED 2027**.
- **SDEMPED 2027**.
- **IEMDC 2029**.

5. Call for Webinar Speakers and Workshops

The Chair invited TC3 members to present webinars, which are broadcast globally and receive thousands of viewers. Members interested in presenting a webinar whose area of expertise would be beneficial to members of PELS, can contact the TC3 leadership team for support. Participants were also encouraged to submit proposals for organizing technical workshops, which TC3 supports with some funding.

Two proposals for workshop organization were submitted and presented during the meeting:

- Prof. Ali Bazzi requested budget of $3000,00 to support the first edition of the First IEEE Northeast Power Electronics Symposium (NEPES). This event will be held in Storrs, (CT, USA) Nov. 21-22, 2024. It is a regional conference with significant drives content and industry participation. Prof. Bazzi requested a motion to approve the budget request, which was seconded by Prof. Giulii Capponi. The motion received unanimous approval.

- Prof. Mohammed Orabi requested budget of $3K to support student attendance at IEEE Conference on Power Electronics and Renewable Energy (IEEE CPERE), which will be held in Aswan, Egypt, 2025. This is a regional conference in which TC3 hosted a special session on machines and drives in renewable energy systems. Prof. Bazzi requested a motion to approve the budget request, which was proposed by Prof. Orabi and seconded by Dr. Hassan Eldeeb. All voting members were in favor.

6. Technical Achievement Award

The IEEE PELS Electrical Machines, Drives, and Related Automation Technical Achievement Award was illustrated to the participants, along with its eligibility conditions and award items. The Award Committee is composed by Prof. Ali Bazzi (University of Connecticut - USA), Prof. Pinjia Zhang (Tsinghua University - China), Prof. Giacomo Scelba (University of Catania - Italy), Prof. Antonio J. Marques Cardoso (University of Beira Interior - Portugal), and Prof. Jiangbiao He (University of Tennessee at Knoxville - USA). After thoroughly evaluating all nominations, the committee selected Prof. Ayman El-Refaie as the recipient of the award for his significant contributions to "development of advanced electrical machines for transportation electrification".

7. Call for volunteers

TC3 committee leadership invited members to support TC3 activities by serving as reviewers, topic chairs, and session chairs for conferences. Interested members can contact Prof. Giacomo Scelba (giacomo.scelba@unict.it), specifying their preferred position.

8. Other business

The chair called for any other business, but none was forthcoming.

9.   Meeting Adjournment

As a closing remark, the Chair thanked all the present attendees for their participation and requested a motion to adjourn the meeting. The motion was moved by Prof. Antonio J. Marques Cardoso and seconded by Prof. Ali Bazzi. The meeting was adjourned at 10:15.

2024 PELS TC3 officers:

Chair: Prof. Ali Bazzi (bazzi@uconn.edu)

Vice Chair of Conferences: Prof. Pinjia Zhang (pinjia.zhang@mail.tsinghua.edu.cn)

Vice Chair of Technologies: Prof. Arijit Banerjee (arijit@illinois.edu)

Secretary: Prof. Giacomo Scelba (giacomo.scelba@ieee.org)

Minutes prepared by Giacomo Scelba