IEEE Power Electronics Society

FIVE-YEAR STRATEGIC PLAN

2021-2025

Approved: June 2020

Rev: October 2024

IEEE PELS Strategic Plan 2021 ~ 2025 Executive Summary

The Strategic Planning Committee has identified five strategic goals where increased activities will be developed. Not listed are the continued emphasis on the mainstays of publications and conferences and an agile organizational structure to meet the needs of an evolving technical field.

Vision Statement

To be THE global resource that all people turn to for education, knowledge sharing, technical events, and networking in the power electronics field.

Mission Statement

IEEE PELS's core purpose is to foster power electronics technological innovation and excellence for the benefit of humanity.

MOTTO

"Powering a Sustainable Future"

2021-2025 Goals

1. Membership Growth	2. Grow Industry Engagement	3. Agile Technical Programs	4. Sustainability	5. Platforms and Tools
To effectively and efficiently administer membership intake, retention, demographic support, value creation and chapter operations.	To develop a comprehensive program which is considered valuable by industrial members and will drive their engagement with PELS.	To capture growth and address opportunities in fast-changing technical fields.	To enable power electronics as the key technology to meet energy and environmental sustainability related to global climate change.	To develop and implement platforms and tools to support all PELS services and activities.

Key Strategies

1.1 Enhance career support programs,	2.1 Bring all the industry related programs under one VP,	3.1 Develop measures to identify and track fast-moving power electronics technologies in FEPPCON,	4.1 Establish a presence in IEEE and other bodies by offering expertise in applications of power electronics technologies,	5.1 Identify, implement and integrate tools and platforms using the latest trends in technology to support conferences, publications, events and governance activities,
1.2 Engage in programs and services in targeted countries with vibrant power electronics activities,	2.2 Recruit more industry DL's focusing on industry and region needs,	3.2 Provide a review system for Technical Committees to address changes in relevance and vitality as part of the FEPPCON program,	4.2 Develop programming targeted activities on Energy Access,	5.2 Develop sustainable business model for PELS online platforms and tools,
1.3 Generate recognition and promotion opportunities,	2.3 Provide more content driven by industry needs,	3.3 Grow and enhance value of Technical Committees.	4.3 Ensure sustainability awareness is integrated into all PELS activities.	5.3 Create a repository of practical information – curate and make available PELS body of knowledge,
1.4 Grow student membership and chapters,	2.4 Create cooperation and products between Technical Committees, Standards, and Roadmaps groups,			5.4 Lead efforts for sharing best practices for conferences / events.
1.5 Enhance chapter service and support programs,	2.5 Corporate training with focus on technical content, standards, project, and resource management.			
1.6 Grow diversity, equity and inclusion of the membership base,				
1.7 Increase membership retention and membership grade category pathway.				

Introduction

The Power Electronics Society (PELS) remains one of the fastest-growing societies of the Institute of Electrical and Electronics Engineers (IEEE). For over thirty years, PELS has facilitated and guided the development and innovation in power electronics technologies. Our membership includes preeminent researchers, practitioners, and distinguished award winners. IEEE PELS publishes the IEEE Transactions on Power Electronics, a top referenced journal among all IEEE publications.

During the period of 2016 – 2020, the IEEE Power Electronics Society thrived. PELS is a vibrant society with a growing membership and has achieved strong financial performance. Service to our membership has become broader, offering an ever-expanding variety of high-quality conferences, publications, and educational programs. The Society has proactively sought out new opportunities to engage our greater community and encouraged collaborative partnerships. Globally, power electronics is regarded as a key enabling technology to facilitate the structural changes needed to make energy systems carbon neutral. In view of this important role that PELS has to play, a mechanism to enable the impact of PELS as a global influencer was introduced, namely a strategic technology workshop: Future of Electronic Power Processing and Conversion (FEPPCON). FEPPCON is held in the alternate years to the PELS Long Range Planning (LRP) workshop. FEPPCON has become the vehicle to revitalize PELS technical programming by serving as a springboard for new initiatives, while the LRP workshop is mainly focusing on developing 5-year goals and strategies of PELS.

Vision Statement
To be THE global resource that all people turn to for education, knowledge sharing, technical events, and networking in the power electronics field.

Mission Statement
IEEE PELS's core purpose is to foster power electronics technological innovation and excellence for the benefit of humanity.

The objectives of the Power Electronics Society shall be scientific, literary, and educational in character. The Society shall advance the theory and practice of electrical and electronics engineering and of the allied arts and sciences, and it shall promote a high level of technical excellence among its members. PELS shall aid in promoting close cooperation and exchange of technical information among its members and affiliates, and to this end shall hold meetings for the presentation of papers and their discussion, shall sponsor periodicals and special publications, and through its committees shall study and provide the needs of its members and affiliates.

Field of Interest
The field of interest of the Society shall be the development and application of power electronic systems and technologies, which encompass the effective use of electronic components, the application of circuit theory and design techniques and the development of analytical methods and tools toward efficient electronic conversion, control, and conditioning of electric power to enable the sustainable use of energy.

Purpose and Values

The PELS Strategic Plan was developed to be directly in line with the IEEE Strategic Plan, including the core purpose, values, and overarching goals. Each of these constructs has been enhanced to be more reflective and specific to PELS. The strategic goals are unique to this plan.

PELS's core purpose is to foster the development and facilitate the exchange of scientific and technological knowledge in our field of interest that benefits members, the profession, and humanity.

PELS's core values are:

- Inclusiveness – Embracing diversity of members and their careers, globally. Respecting each other's needs and values with honesty and transparency.

- Networking – Creating and sustaining an engaged, interactive international community of power electronics professionals.

- Professionalism – Maintaining the highest level of professional and ethical standards.

- Excellence – Disseminating high-quality power electronics information in a timely, equitable and objective manner.

- Volunteerism – The driving force of the organization. Providing volunteer opportunities that are rewarding to members and their employers.

- Advocacy – Promoting power electronics to engineers, government, and society.

The PELS overarching goal: to be the most recognized, respected, and visionary global organization in the Society's stated field of interest. This is accomplished by being:

- Essential to the global power electronics community, and serving as the home for power electronics professionals,

- The place where innovators and practitioners meet,

- Recognized globally, as the leading organization for forming new knowledge communities, delivering quality information and supporting power electronics professionals,

- The preferred place to go for timely, relevant power electronics information, and

- The place to go to seek innovation and new ideas for energy advances.

- In addition, it is the objective of PELS to have every power electronics professional and stakeholder to be a member. PELS wants students to join and become active volunteers throughout their careers.

PELS' purpose of creating and maintaining a diverse global community of professionals to exchange technical information for the betterment of humanity and the profession includes promoting the creation, dissemination and validation of high-quality power electronics information. This strategic plan envisions the establishment and maintenance of a holistic environment to serve the needs of practicing engineers while providing lifelong learning, and career development and leadership opportunities.

This also includes promoting the identification, creation, development, standardization, and application of power electronics technologies and disseminating the knowledge to the membership, the profession, and the public.

Numerous different communities have interest in the products and services provided by PELS. According to their professional interests and needs, those constituencies include:

Researchers
- Educators and researchers in academia
- Graduate students
- Industrial researchers
- Researchers in government laboratories

Practitioners
- Technologists (developers of technologies, products and services)
- Practitioners in design, manufacturing, marketing, operation and application
- Consultants
- Managers

Others
- Undergraduate students
- Policy makers and government agencies (technocrats & politicians)
- Media (scientific/technical & general)
- General public

Within most of these communities there are subgroups which may have different professional interests and needs according to their professions, age and sex or geographic and cultural identities. Diversity and inclusion of constituencies is a cornerstone of our Society. Power electronics researchers and practitioners, irrespective of their other affiliations, are our core constituency and members, and hence it is essential that PELS widely engage with these communities to continuously evaluate their needs and provide the best possible professional services inclusively to all of them. Furthermore, it is also a keen interest of the core constituency that PELS provides appropriate high-quality and timely services to other communities with interest in or influence on our profession, whether within IEEE or outside.

At present, PELS is providing outstanding services to researchers, is striving to improve services to practitioners, and continuously seeks to adopt new programs and services to engage and benefit the global community. Such efforts directly tie back to and focus efforts to our Mission: *IEEE PELS's core purpose is to foster power electronics technological innovation and excellence for the benefit of humanity.*

Strategic Goals

1. **Membership Growth – 15K members by 2025 (targeting 8.5% annually)**

   To effectively and efficiently administer membership intake, retention, demographic support, value creation and chapter operations.

   1.1 Enhance career support programs

   1.2 Engage in programs and services in targeted countries with vibrant power electronics activates

   1.3 Generate recognition and promotion opportunities

   - How many we have now vs. how many new programs by 2025

   1.4 Grow student membership and chapters

   - By 2025 grow student membership to 20% of total membership

   1.5 Grow affiliate membership for non-power-electronic specialists

   - By 2025 grow affiliate membership to 10% of total membership

   1.6 Grow diversity and inclusion of the membership base

   - Establish in 2020 the baseline and by 2025 grow 8% in targeted demographics.

2. **Industry Content – Meet the needs of industry**

   To develop a comprehensive program which is considered valuable by industrial members and will drive their engagement with PELS.

   2.1 Bring all the industry related programs under one VP – by 2021 (Done)

   2.2 Evolve the Distinguished Lecturer program to address industry needs

   - 50% of DL subject matter will target Industry and system applications

   2.3 Provide more content driven by industry needs

   - 25% of Conference Technical Programming/Tracks will be targeted to Industry members

   - Grow the influence and integration of the Society's Power Electronics Magazine with other programs, services, and products to enhance the Industry members' experience.

   2.4 Create cooperation and products between Technical Committees, Standards, and Roadmaps groups

- Cross-representation of Committee members – statistics to demonstrate engagement/inclusion
- Ensure that Standards and Roadmap activities will be an integral part of TC's work

3. Agile Technical Programs – **Remain relevant and proactive**

To capture growth and address opportunities in fast-changing technical fields.

3.1 Develop measures to identify and track fast-moving power electronics technologies in FEPPCON

3.2 Provide a review system for Technical Committees to address changes in relevance and vitality as part of the FEPPCON program

3.3 Ensure a provision for each Technical Committee to hold a primary event

4. Sustainability – **Support the transformation of society towards low-carbon energy**

To enable power electronics as the key technology to meet energy and environmental sustainability related to global climate change.

4.1 Establish a presence in IEEE and other bodies by offering expertise in applications of power electronics technologies

4.2 Develop programs targeted at Energy Access members (build on the Empower a Billion Lives competition)

4.3 Ensure sustainability awareness is integrated into all PELS activities (For example, keynotes, Green Conference Execution, and sustainability flavored student programs)

5. Virtual Platforms – **Meet the evolving needs and delivery of programming and services**

To develop and implement platforms and tools to support all PELS services and activities.

5.1 Identify and implement tools and platforms for hybrid conferences/events and governance activities

5.2 Develop sustainable business model for conference/event recordings

5.3 Create a repository of practical information – curate and make available PELS body of knowledge

5.4 Lead efforts for sharing best practices for conferences/events

(Note: here is where we mark the end of the formal strategic plan – what follows is addendum or ancillary)

Strategic Planning Committee - 2020

Strategic Planning core committee

    Braham Ferreira, Senior Past-President

    Alan Mantooth, Immediate Past-President

    Harish Krishnamoorthy, Students and Young Professional Committee Chair

Appointed committee members

    Prasad Enjeti

    Mark Dehong Xu

    Pradeep Shenoy

    Noriko Kawakami

    Rik de Doncker

    Deepak Divan

Executive Team

    Frede Blaabjerg, President

    Jian Sun, Treasurer

    Liuchen Chang, President-Elect and VP Conferences

    Yan-Fei Liu, VP Technical Operations

    Brad Lehman, VP Products

    Jinjun Liu, VP Membership

    Johan Enslin, VP Standards

    Mario Pacas, VP Global Relations

Staff

    Mike Kelly, Executive Director

    Becky Boresen, Senior Society Administrator

Long Range Planning Committee - 2023 - update Strategic Plan

Strategic Planning core committee

Frede Blaabjerg, Senior Past-President

Liuchen Chang, Immediate Past-President

Nayara Brandao de Freitas, Students and Young Professional Committee Chair

Appointed committee members

Luiz Henrique Barreto

Joseph Kozak

JinJun Liu

Christina DiMarino

Lauren Kegley

Srinivas Karanki

Executive Team

Brad Lehman, President

Pradeep Shenoy, Treasurer

Jian Sun, VP Conferences

Patrick Wheeler, VP Technical Operations

Ryan Li, VP Products

Mark Dehong Xu, VP Membership

Johan Enslin, VP Standards

Mario Pacas, VP Global Relations

Staff

Mike Kelly, Executive Director

Becky Boresen, Senior Society Administrator

Strategic Plan History

- Prior to 2012 IEEE Power Electronics Society did not have a written Strategic Plan document
- Retreat of PELS Long Range Planning Committee prepared the first Strategic Plan, September 14-15, 2012
- Initial Release (Rev 0) Revision 2013-2014 approved by AdCom, March 22, 2013
- Revision 1: Biannual retreat of PELS Long Range Planning Committee, September 23-25, 2014; Revision 2015-2016 Approved by AdCom, September 24, 2015
- Revision 2: Biannual retreat of PELS Long Range Planning Committee, May 27-30, 2016; Revision 2017-2018 approved by AdCom, September 22, 2016
- Revision 3: Biannual Offsite retreat of PELS Long Range Committee, June 6-9, 2018
- Mid-Cycle Review Version, July 23, 2018: Revision 2018-2019 approved by AdCom, September 28, 2018
- Long Range planning August 2023: Revision 2023 approved by ADCOM
- Revision of document approved at AdCom October 24th, 2024

Use of Addendums: TACTICAL IMPLEMENTATION PLANNING

Annually the PELS Leadership and the Executive Director undertake an executive team retreat. At the conclusion, the leadership proposes Society level goals and sets priorities to generate a Tactical Implementation Plan (TIP). Those annual TIPs would become addendums to this Strategic Plan document. The components of that TIP are the action items, motions, staff directives, and any strategic or altruistic activities resulting from our Exec Retreat and AdCom meetings.

These annual TIPs will ensure a direct connection between our strategic planning and in-year activities and therefore form the basis our budgeted programms and services.

In nonprofits, strategic planning at the operational level equates to the programs, services, and near-term activities undertaken to focus Board-level or Administrative Office operational goals to ensure relevance in member services and operations.

Every program or service we run should be able to be tied back to our Mission and one or more of our Strategic Goals. As well, the TIP should document the strategies undertaken and define the mechanism or metric to gauge progress towards the Goals and Key Strategies included in the five-year plan. Doing so will focus our programming, provide for and allocate resources, and align our efforts to meet our Mission and Vision.

Society Goals - IMPLEMENTATION PLAN 2021

By program area   *key: meets Society level Goal#(s) (e.g. G3.3, G5.2) + budgeted Project# (e.g. P-2020-8)*
or program/service listing – cross-referenced to annual tactical documents

Membership

- **G1.1, G1.4, G1.5 / P2020-6** - **Society Growth, Branding, and Recognition**

  - Continue and expand a grassroots engagement exercise and celebration such as PELS Day

  - Run membership and chapter engagement events, contests, and use the event as a springboard for membership Loyalty, Retention, and growth programming efforts.

  - Develop a loyalty program for volunteer services by members in society products and conferences.

  - Embark a Senior Membership drive.

  - Grow affiliated membership.

  - Develop a conference registration fee structure to attract new members, particularly industry members (may start with primary TC conferences with 100% ownership).

  - Leverage IEEE/TAB initiatives and products to further boost PELS membership growth potential

- **G1.2, G1.3 / P2020-12** - **Diversity & Inclusion - Membership/Leadership/Board level engagement and representation**

  - PELS has made a commitment to fostering diversity and inclusion philosophy and practice throughout our organization and its programming. From Grassroots development including Membership Recruitment and services, Chapter and Board leadership cultivation, to ensuring that PELS is culturally aware and sensitive to the many facets of D&I practice. Not stopping only at YP and WIE continued support, it is a key Strategy under our Strategic Plans Membership goal.

  - The Society will identify tactics and track specific metrics for improving our D&I statistics. To that purpose, the Society should more formally identify key under-served and potential growth membership demographics. One suggestion is to challenge each AdCom member to demonstrate during their term, engagement or activities fostering advocacy and sponsorship towards improving our D&I.

- **G1.1, G1.4 / P2020-7** - **Mentorship and Career Development**

  - Programming and support activities to support our now establish Mentorship program within PELS. This is in tandem with the Society-level fund established just in June 2017 at TAB of a PELS Education and Future Workforce Fund.

Industry (Standards)

Pick the relevant strategies from Goals 2, 4 and 5 and discuss possible tactics.

- **G2.3 / P2020-9** - **PELS Industry Engagement for Service and Growth Program**

  - Industry Engagement is at the heart of PELS - and we have formed an Industry Advisory Board. Plans include special workshops, targeted communications/collateral development, training material development, member benefits feature to both attract and engage Industry members to PELS.

  - Coordinate and lead industry engagement and participation in PELS standards, technical operations, products and conferences.

  - Provide regular updates in PELS e-Newsletters and website.

  - Encourage industrial leaderships in PELS standards.

- **G2.4, G3.2, G5.3 / P2020-11** - **Standards - Training for Member/Volunteers**

  - PELS is increasingly asked to participate or lead standards activities. It is felt that our membership and leaders would benefit from such activity, and we propose to create systems and tools, provide meets and online training on what it means to engage in Standards work. To accomplish this Strategic Planning set goal, PELS will establish a more formal Standards Committee and create any needed divisions within, while providing training and opportunities for our leaders and members to engage with IEEE Standards group as well as PELS led initiatives for standards.

  - Ensure the representation of TCs on Standards committee and roadmap groups.

- **G2 + G4 / 1.4 4.3 P-2020-5   PELS International Technology Roadmap of Power Electronics for Distributed Energy Systems (ITRD)**

  - Distributed energy resources (distributed generation, energy storage, and loads) have been experiencing increased penetration in electrical grid. Initiation and preparation during 2019, and formal launch in 2020. Stakeholders include industry (manufacturers, technology providers, consultants and utilities), national labs and research institutions, academia/students and professional associations.

  - Encourage roadmap working groups to publish the contents of whitepapers and position papers in PELS journals (particularly OJPE, or special issues of JESTPE) or conferences (special sessions).

Operations

Pick the relevant strategies from Goals 3 and 4 and discuss possible tactics.

- **G2.4, G3.2 / P-2020-1 Technical Committees Growth and Support**

  - Enhance member engagement, provide additional volunteering opportunities for more members, fuel new products and services, maintain relevance for our FOI within IEEE. Possibly incubate new publications, OU partnerships, and conferences via TCs.

  - Establish a review process for TCs to address changes in relevance and vitality as well as scope and mission, every 2 years.

  - Provide regular updates in technical operations in form of e-newsletters.

  - Encourage joint events covering cross-cutting topics of multiple TCs, perhaps through virtual conferences.

- **G3.1, G3,2 – Identify fast moving technologies and review TCs' scopes**

  - Track the recent developments in industry, identify new initiatives, and update TC's areas, at FEPPCON.

- **G3.3 – Ensure that each TC has a primary event in its technical scope and held annually**

  - Include the provision of a primary event (annually held, with major financial share) in each TC's Policies and Procedures.

Global Relations

Pick the relevant strategies from Goals 1 and 5 and discuss possible tactics.

- **G1.2 / 2020-3 - Global Presence - Membership Development, Diversification, and Support**

  - Organize promotional and outreach activities such as workshops and seminars in identified geographic regions and countries with vibrant power electronics activities and low presence of PELS. In these events

PELS offers a platform for establishing local networks of knowledge and cooperation with the participation of academia, national professional societies and local industry.

- ▪ Continue the development and expansion of partnerships (including joint chapters) with national and international power electronics organizations in identified countries and regions.

- ▪ Expand our partnerships with industry associations, non-IEEE associations, NGO's etc. through conferences speeches, DL activities and joint memberships etc.

- **G5.1 / Project TBD (NEW) Research, purchase/license VCP(s) (Virtual Conference Platforms)** – such as Infovaya, ON24, Zoom), train up staff and volunteers

- **Establish an organizational structure and formal memberships of the Global Relations Committee**

- **G1, G2, G4, G5 – Work on establishing Global Summit of Power Electronics with inviting speeches by leaders of national and international power electronics societies**

Products

Pick the relevant strategies from Goals 2, 4, & 5 and discuss possible tactics.

- **G1.1 , G4.2, G5.3 / 2020-13 - PELS-A-Pedia: Society-level Educational Repository and Portal**

  - ▪ Create a program of purposeful curation and accessibility of both PELS and select educational resources (with permissions to use same) to benefit our membership and industry practitioners within the Power Electronics community globally. Targeted webinars, curate technical library, competition for inclusion, content contribution, web presence, social media, etc.

- **G1.1, G5.3 / P2020-10 Educational Products Development and Outreach**

  - ▪ PELS is working on new Tutorial level and MOOC-like educational products and services, and is investigating the creation of a certificate program. In part, this is to round out and increase our products on the IEEE Resource Center and to enhance member service, outreach, and support the value proposition of being a Society member.

  - ▪ Set up review metrics and certification mechanism for educational material. Include access to existing materials from websites, as well as from other PELS events for education and continuing education purposes.

  - ▪ Implement a virtual bi-monthly online panel or discussant format tutorial activity coordinated with the existing Distinguished Lecturer program in order to generate more opportunities for instances of debate and discussion in the power electronics area. There is the potential to extend this idea and invite the authors of the prior monthly's most cited paper in TPEL to be the discussant or panel leader, there by serving a dual purpose; to generate panel subject matter and provide for the author(s) to be recognized and distinguished as the selected speaker.

- **G1.2, G2.3, G5.3 / P2020-5 - PUBLICATIONS - IEEE Open Journal of Power Electronics (OJ-PEL)**

  - ▪ Part of PELS's mission is to provide the power electronics community with a high-quality, peer-reviewed Gold Open Access journal that fosters technological innovation and excellence for the benefit of humanity while meeting author needs to publish within their funding requirements.

  - ▪ PELS is regarded as a trusted and unbiased source of technical information for dialog and collaboration to advance technology within the power electronics community. PELS is led by researchers and technology

professionals who are at the center of respected power electronics communities where readers and authors already come together.

- ▪ Encourage more digital contents in all journals.

- ▪ Introduce an online portal/system to curate summary briefs specifically targeted at Industry member's needs for our products such as review papers, tutorials, webinars, designs etc.

- ▪ The specific needs and requirements of academia and industry in a country or in a geographical region should be identified and, if necessary, tailored offers should be made from our portfolio.

Conferences

Pick the relevant strategies from Goals 2, 3 and 5 and discuss possible tactics.

- ● **G2.3, G3.3, G5.1, G5.2 / P-2020-8 - Conference Development and Attendee Growth Program**

  - ▪ Increased member engagement and grow conference revenue and attendance/participation.

  - ▪ Evaluate, identify and support virtual platforms appropriate for PELS conferences and events including poster sessions and virtual exhibitions.

  - ▪ Investigate, develop and share conference business models and guidelines for approval process, revenues, delivery, and recorded materials etc.

  - ▪ Support implementation of primary conferences for each of all TCs.

  - ▪ Increase industry related tracks/sessions in TCs' primary conferences via invited, panel and paper sessions.

- ● **G5.3, G5.4 (NEW) Conference Website Curation Project – (example of a staff driven directive)**

  - ▪ Organize conference organizers forums and compile website resources for best practices and supporting materials.

  - ▪ Develop training materials for conference organizers.

Governance

- ● G5.1 / (NEW) Research, purchase/license VCP/VMP to ensure stable and efficient governance meetings can be conducted virtually including agenda tools, voting tools, and virtual meeting tools.

- ● G5.3 / (NEW) Enhance Website to curate past committee meetings, minutes, rosters, bios, who's who of PELS.

Society Goals – IMPLEMENTATION PLAN 2022

- • Fellowship and scholarship program and 6 new TC level awards - completed
- • Membership development programs (12K for 2022) - achieved
  - o Implementing new overlength charge schemes (VP Products) - done
  - o Implementing new membership fees including the Essential Category (VP membership) – completed – active in 2023
  - o Implementing the regional and sub-regional organization (VP membership) - done
  - o Implementing elevated chapters/student branch chapters' support program - done
  - o Supporting AdHoc's efforts in developing additional membership benefit programs - ongoing
- • Adequate resources to support the operation and initiatives - under core and Manage employees
  - o Website redesign.- – Website project began Sept 2023

- o Part-time contracting for conferences for support and date curation etc – in discussion
  - o Services for expanded publications and Webinars (2023) - 3 hired completed 2 in Pubs – 1 for TechOPS,
- PELS organizational changes
  - o VP Industry and Standards - work to form the Industry Committee- bylaws change - posted - voted on our AdCom consent agenda in June IEEE - done
  - o VP Education and Outreach/Partnerships (started the consultation process, shorting for a proposal to Oct. AdCom, and subsequently the Education standing committee) - AdCom voted to set Education as a new independent Program Area – added to Global Relations VP duties
- Finance
  - o Transferring funding to foundation accounts - need to meet. – done - $450K transferred
  - o Budgeting for 2023 – done – 2023 budget approved – 13 aggressive projects, new head count for Conferences
- Projects
  - o Supporting EBL-II and partners – EBL 2.0 finals
  - o Developing new projects (under 3% rules for 2023) based on March AdCom/FEPPCON -STEM and Membership program growth standouts..
- Operation
  - o Publication review (June). Passes all PRACS
  - o Society Review (Nov). Passed
  - o Conference Review Portfolio Comm – Meeting complete – passed
  - o FEPPCON (June) for TC updates and technology updates plus possibly new projects.
  - o LRP meeting – leading to updates to Strategic Plan
- Diversity, Equity, & Inclusion - Data collection / statistical reporting /curation capture system - (Conferences, Pubs, ops, chapter officers, WIE, YPs, Awards.. etc.)

MEMBERSHIP New campaigns - need approval/acknowledgment from IEEE FinCOMM - DONE

- Student Branch Chapters Support Program (New Projects fund in 2022, and operation budget from 2023)
- PELS Chapters & Joint Chapters Support Program
- PELS Regional Membership Support Program

Society Goals - IMPLEMENTATION PLAN 2023

Finance
- Create Dashboards / Score Carding – for Technical Committees and Projects, Quarterly YTD spending on agreed upon key performance areas / KPIs - completed
- Train and support new Treasurer - completed

Industry & Standards
- New Roadmap (under 2.4) – investigate and determine 1 new Roadmap for PELS to lead (could be on eGRID or HVDC) – ITRG created
- Assist in Job Fairs to attract and aid Industry members - done
- ITRW & ITRD – Continue to support – complete ITRD 1.0 publishing - done
- Update Standards Committee operating policy & procedures document - done
- Form the Industry Committee (new) - completed
- Form the Industry & Standards Executive Committee (PELS I&S) - completed
- Conduct Attendee surveys at our conferences as requested - as requested
- Gage interest in conducting special Industry & Standards Sessions at smaller conferences - surveyed

- Encourage "focused Industry tracks (at our conferences)linked to Patents, Standards, and Roadmaps - done

Technical Operations
- MagNet Challenge – launch new TC10's Design Contest, apply to TAB ARC for awards – done – award winner from ASAE -huge recognition for PELS outside of IEEE
- TC Websites -improve key word searches (Iceland work) in websites - - completed
- "TC Webinar a Week" program – added program of technical education – VP OPS - completed
- TC "overview video" interviewing project and presentation decks for each – TC awareness and member growth campaign- completed
- Allocation of Travel Grants (larger conference support their own – drive my support to smaller or challenged conferences- completed

Awards & Recognition
- Fellowship and scholarship program and new awards – inaugural launch at APEC '24 - completed
- EBL2 – complete EBL cycle and execute the field tests, plan and execute the award ceremony - completed
- Assist in development and approvals of Milan Jovanovic Award – Society level award - approved by TAB ARC

Membership & Chapters
- Membership Survey – working with VP and AdHoc – create and execute a 2023 Membership survey on products, program and services ratings, needs, and perceived value/service benchmarks - completed
- Execute the PELS Townhall and PELS Day activities - completed
- Best Chapter program expansion – create different levels and criteria- completed 3 categories now
- Membership development programs (13K for 2023 – roughly 8% total overall growth – (if we maintain we will be at 15,116 by 2025..). membership topped 13,000+ in 2023
    - Implement new Essential Category and drive new membership through campaign work and promotion
    - Grow and support the Regional Membership program
    - Implement elevated chapters/student branch chapters' support program

Diversity, Equity, and Inclusion
- Data collection system to capture on program engagements, TCs, Membership- completed
- Develop guidelines, policy and Procedures manual for PELS- completed
- D,E, & I Training for AdCom members – "unconscious biased" or other program working with IEEE Human Resources or consultant – program delayed

Future Workforce / Mentorship Program
- Reinvigorate and get PELS Mentorship, Job Board, and Job fairs centralized and active again - pursued
- PELS Student Symposium – plan and execute a 2nd Student Symposium- completed

Website Redesign
- Research, source, and hire firm to undertake a PELS website redesign -begin in Sept '23 – completed in March '24
- Consolidate, centralize and enhance website functions - completed

Conferences
- Conference Management System – working with VP and AdHoc – identify needs, create SOW, source platform vendors, select firm, (registration, papers, technical program, curate/archive past iterations of contracts, meeting minutes, rosters of org-comms, MOUs, reports or recordings..) – still in progress
- Determine and work towards D,E&I goals in membership of our conference org-comms- completed

- Work with AdHoc on viability of a PELS Congress (general Meeting) – tabled -

Education / Standards
- **Webinar and Social Media** – Educational programming – general webinars program outside TC based..
- Assistance to undergraduate PE programs implemented for universities in needs: PE Lab Kit, PE Curricula guides, STEM support programming
- **PhD Schools** – expand and support program – regional, multi-subject, create new partnerships where possible
- (2.3) PELS Academy - investigate opportunity for 1-3 day short courses or Tutorials (Johan) i.e. a Corporate Training product(s) – a series of single subject, multi-part high level training – i.e. like General Electric Wind-Turbine trainings concept with Jian… - Johan's Roadshows concept – combine.
- Credentials, Certificates for CEUs and PDH, and Digital Badges for our courses and webinars
- PELS Tube - video platform and contest -   reinvigorate or repurpose? Combine with Website project

Products- completed
- Maintain high level of quality (downloads, IF,)
- Ensure >5% growth – continue page count increases
- Webpage / Social Media for each product/publication
- Create a review system for OJPELS – for author reviews/comparisons

Operations- completed
- Hire (new) FT Conference program lead person by APEC
- Hire (replacement) T-TE Editorial Assistant by April
- Hire PT Administrative/Editorial help for Products by April
- Hire PT Administrative Society support for Webinars and social-media
- Hire Sr. Sr Admin Tech operations – replace A. Tomaszewski – added in March

Society Goals - IMPLEMENTATION PLAN 2024

The Officers of the Power Electronics Society convened at the Annual Tactical Planning meeting (ATP) from January 18th-20th 2024 to review and discuss the (updated) 2021-2025 Strategic Plan and set priorities for Program area top goals for the 2024 year.

At the ATP, each Vice President and officer reported out on 2023 progress, observations, and performance in their program area.

Post the 2024 ATP retreat, each VP participated in focused meetings for purposes of a deeper-dive and the annual Society-level goal setting exercise was completed. This is a high-level summary of that exercise.

Technical Operations

SG-1   **TC - Student Competitions** (maps to SP 2.1)
- Encourage all TCs to begin a student competition. Building on TC10's MagNet Challenge, expand pilot to at least 2 other TCs run a competition.
- Create a repeatable model, ensure all notes and processes are included to pass along to other TCs to use.

SG-2   **TC Manual & Leadership Training** – procedural and documentation
- Wiki, "how to's" for leadership training and curation of institutional knowledge
- Curate TC governance and procedures

SG-3   **Webinar a Week program** (maps to SP 1.2)
- Continue with a Webinar a Week program via resources in Nottingham - renew and maintain the current staffing levels

SG-4   **Multi-lingual Webinars** (maps to SP 1.2)
- Research, facilitate PELS webinars in other languages - and hold events in other time zones to meet needs of our global Community.

Education / Global Relations

SG-5:   **PhD Schools**: Continue program and expand. (maps to SP 1.6)
- Develop and document the process for proposing/approving PhD schools and publicize them more widely
- Grow and support the program with more offerings.
- Look for ways to train and provide speakers/instructors.
- Generate common lesson plans, curriculum to make them more uniform while generating guidelines

SG-6:   **Educational Videos** (PELSTUBE). (maps to SP5 – Virtual Platform and Tools)
- Edu. Videos: Reinvigorate PELSTube and develop educational videos to release for PhD schools
- Clarify project, inclusion in Website or another platform such as YouTube channel

SG-7:   **PE Learning Kits** (continue and expand program). (maps to SP 5. Virtual Platforms & Tools)
- (More clearly) define the goals of university kits and support the production of first-iteration kits, and form a committee for outreach kits (primary schools)
- Investigate and support University-level kits + lesson plans

SG-8:   **Global Relations Committee Policy & Procedures**
- Governance: Revise the Global Relations P&P document to formalize the Global Relations and Education structure

Membership

SG-9:   **Membership Marketing Campaign** (maps to 1.6)
- Contract with outside marketing firm to create campaign, materials, collaterals, and strategy for targeted PELS membership drives

SG-10:   **Formal Agreements with National Societies** (maps to 1.1)
- Cultivate and complete Society Agreements (national and sister) with other power electronics groups around the globe
- Establish stronger connections between PELS and other power electronics-oriented societies

SG-11:   **Programs to bridge Student to Higher Grade Membership** (maps to 1.6)
- Support the transition from Graduate Student to Higher Grade membership status ("Young Engineer Membership Support Program/Grant")

SG-12: Global Membership Development Award. (maps to SPG1.3)

- Establish an award to recognize volunteers contributing to global membership development
- Establish PELS Global Membership Development Award to recognize a volunteer each year who has contributed to global membership development

SG-13: Chapter/SBC Fund Transfer Procedures (maps to SPG #5 – Virtual Platforms and Tools)
- Create a dashboard/data gathering & reporting system to inform PELS OUs of the status of chapter grants/fund transfers
- Ensure more transparency between PELS and recipients during funds transfer

Products

SG-15: **Membership Marketing Campaign** (maps to SPG 1.6)
- PELS publication support – All journals moved to Author portal,
- Educate authors/reviewers/editors (self-citations, AI tools use)
- Editor assistance
- Evaluate the PELS templates and publications to be more equitable
- Educate authors/reviewers/editors (self-citations, AI tools use)
- Paper review and reviewers conversation (use MPEL as a pilot)

SG-16: **New Partnered IEEE Journal on WPT** (maps to SPG 2.3)
- Support and help present for approvals within IEEE PRB a new journal partnering with MTT-s and others (TBD)

SG-17: **Celebration/promotion of PELS publications** - MPEL 10 year anniversary
- Complete for fall the 10 year anniversary project - special edition, celebration

SG-18: **AI based article search pilot** (maps to SPG #5 – Virtual Platforms and Tools)
- AI based article search function for PELS articles to improve reader's experience, create more visibility of PELS articles, and maybe more downloads and citations
- A pilot platform/widget embedded/linked to PELS website that readers can use for PELS article search. Plan to pilot with TPEL first

SG-19: **PELS Publications - Mid to Long term planning** – EIC Summit @ POE
- 1) PELS publication mid-long term planning discussions from the EiC's perspective
- 2) Evaluate new trends in the publication world - transparent review
- 3) Discussion of EiCs succession and transition (MPEL documents transition), Transparent review pilot – OJPEL

Standards and Industry Relations

SG-20: **Roadshows** – (maps to SPG 2.3)
- Develop a PILOT training/lecture program targeted at Industry practitioners.
- Can be Virtual and in-person. Increase engagement, building a program of participation.

SG-21: **Standards Training** - (maps to SPG 2.3)
- Follow through on plans to create modules / training workshops at major flagship conferences for Standards training. Possibly create add-on modules to the TCOS base video series of straining from TA and SA units in place.
- Engage more PELS members in the standards efforts of PELS
- Build awareness of PELS doing standards - drive more people to get involved with Standards with PELS/IEEE

SG-22: **Brand Awareness campaign for PELS involvement in Grid Related Activities** (SPG 2.3)
- Develop a plan / document / collaterals to address B/A

Governance

SG-23: **Volunteer Position Descriptions / Board Development** (Administrative or Procedural)
- Research and author "Job Descriptions" and time commitments for PELS leadership positions
- Develop role responsibility guidelines to aid/answer candidate questions

SG-24: **IEEE Foundation Funds Transfers.** (Administrative or Procedural)
- Replenish funds for Humanitarian ($250K), Future Workforce($150-200K), and new Rashad Award Fund ($25-$150K) - to be done at June TAB if allowed

SG-25: **Financial Information Reporting.** (Administrative or Procedural)
- Continue to refine and deliver timely reports via Dashboards and new reporting to ensure Officers and staff have actionable information to monitor budgets, 50% spends, and Project (3% rule) activities

SG-26: **Expenditure Approval Tracking and Facilitation** (Administrative or Procedural)
- Create a system to capture requests and expedite expense (travel, lodging requests, budget increase requests, etc.)
- Motion & Financial Implications Capture @ AdCom meetings

Conferences

SG-27: **Conference Leadership Training** (maps to SPG 5.4 Virtual Platforms & Tools)
- Establish training sessions for new conference organizers to provide materials and information needed to successfully run a PELS conference.
- Establish process for training new conference organizers. Create full day session with assistance from MCE.

SG-28: **Create / Refine Technically Co-Sponsored Status Policies & Procedures** (maps to SPG 5.4 Virtual Platforms & Tools)
- Put in place procedures for approving TCS conferences
- Receive approval from Conference Committee and AdCom

SG-29: **Conference Management System** (maps to SPG 5.4 Virtual Platforms & Tools)
- Continue to investigate - Buy vs. Build - platform to support Conference business - Registration, Papers, Curation, Financial management

SG-30: **Complete Follow-on Actions for Selected Conferences**
- INTELEC, SPEC, eGrid, ECCE-Europe (ECPE Partnership)
- Work with INTELEC to set up procedures and policies, potentially adding a steering committee
- Out of Cycle approval mechanism – create system to submit, approve, and track OOC requests

SG-14: **Membership / Dues included in Conference Registration / Discounting**
- Investigate ways to include dues inclusion through conference reg
- Conferences 100% PELS sponsored only
  (note SG-14 moved from Membership to Conferences)