Administrative Committee IEEE Power Electronics Society University of British Columbia Vancouver, BC, Canada 17 June 2001

Officers		
President Operations V.P. Meetings V.P. Treasurer Senior Past President Junior Past President Division II Director	Thomas Habetler Dean Patterson F. Dong Tan Steven Leeb Jerry Hudgins Philip Krein Thomas Jahns	

Members at Large (and terms)			
1999-2000-2001	2000-2001-2002	2001-2002-2003	
Hirofumi Akagi Dusan Borojevic William G. Dunford Mark Jacobs Keyue Ma Smedley Katsuichi Yotsumoto	Jan A. (Braham) Ferreira D. Grahame Holmes Jose Antenor Pomilio Seth R. Sanders F. Dong Tan Tore M. Undeland	Rik W.A.A. DeDoncker Johan H.R. Enslin Kevin Fellhoelter Hirofumi Matsuo Rene Spee Charles Sullivan	

Operations Committees			
Asian Liaison Automotive Power Awards Chapter Development Simulaton,/Modeling & Control TC Constitution/Bylaws Education Activities ETTC European Liaison Fellow Evaluation History	Tatsuo Sakai Randy Frank Chris Riddleberger Jaime Arau Antonelli Monti Keyue M. Smedley Marcelo Godoy Simoes John DeCramer Rik W.A.A. DeDoncker J. Daan van Wyk William Sayle	Intersociety Liaison Long-Range Planning Membership/Publicity Newsletter Power Packaging Publications Region 9 Liaison Standards Transactions Electronic Media	Dean Patterson Jerry Hudgins Enrico Santi Gene Wester Douglas Hopkins Ron Harley Miguel Velez-Reyes Jason Lai Arthur W. Kelley Philip Krein

Meetings Committees				
Meetings PESC Steering	F. Dong Tan W. G. Hurley	Telecomm Energy	Robert Jurewicz Mark Jacobs	

President's Committee		
Nominations	Philip Krein	

PELS Administrative Office		
Administrator Robert Myers	PELS Office Lee Myers	
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TAB Public Relations Committee IEEE Press Books TAB Transactions Committee TAB Newsletters Committee IEEE Standards Board TAB Intelligent Transportation Committee APEC Steering Committee	Enrico Santi William Hazen Arthur W. Kelley Gene Wester Jin-Sheng (Jason) Lai Dean Patterson C. Mullet, F. D. Tan.	
Past Pr	esidents	
William E. Burns III (Council 1984-86) John Kassakian (Council 1987, Society 1988) Pierre A. Thollot (1989-90) Thomas G. Wilson, Sr. (1991-92)	Fred C. Lee (1993-94) Thomas M. Jahns (1995-96) Jerry L. Hudgins (1997-98) Philip T. Krein (1999-2000)	

Bold face signifies attendance at meeting

ACTIONS

Enrico Santi will organize a committee to encourage Society members to seek elevation to Senior Member grade.

The Society will conduct a survey of its membership's needs and interests and Tom Habetler will provide an introductory letter for the survey.

Santi will organize a committee and develop a concept for a publicity video on power electronics.

Jaime Arau will determine if funds are available from the Russian Chapter to help support a student chapter in Russia.

Phil Krein will continue his developmental planning for power electronics letters to be available on-line.

MOTIONS

Approved a plan where, upon request, Life Members of the Society may receive complimentary printed copies of the PELS Transactions.

Adopted an amendment to the Society Bylaws authorizing technical committees to become active in reviews of digests submitted for sponsored conferences.

Created three new technical committees and authorized committee chairs as members of the AdCom.

Authorized \$5,000 in seed money for the 2000 Computers in Power Electronics Workshop in Puerto Rico.

Approved a plan whereby Bob Myers will develop a proposal for electronic handling of papers for Society conferences.

Reduced the Transactions page count for 2002 to 1,150 pages and asked Treasurer Steve Leeb to so advise IEEE.

Authorized the editor of the Transactions to link publication of papers to active participation in the review process.

The meeting was called to order at 10:15 a.m. by President Tom Habetler with a quorum attending (Attachment A). After self-introductions the president outlined a new approach to the meeting agenda, specifically the integration of action items into officer and committee reports.

Ron Harley **MOTION: moved approval of the minutes of the March 4 meeting as submitted by mail (the electronic version dealing with development of a power electronics magazine was corrected).** Phil Krein seconded and the minutes were accepted.

Intersociety Cooperation

Although no formal meeting is scheduled, Phil Krein said he expects an informal gettogether of presidents will take place at TAB meetings 21-23 June in New Brunswick, NJ.

A proposal by the four cooperating societies – Power Electronics, Industry Applications, Industrial Electronics and Power Engineering – for a joint membership has run into obstacles at IEEE because of a policy on discounts, Krein said. He noted IEEE permits one discount and a permanent membership offered by PELS and other societies qualifies as that discount. Habetler and Krein said the Intersociety Committee will have to develop a package that gets around the discount question and satisfies IEEE.

Future Energy Challenge

Jason Lai said 12 of 14 collegiate teams are expected to submit reports to Bob Myers by Monday, 18 June. Judging will begin immediately and final competition will take place in August, with the winning recipient selected and a presentation made at the Industry Applications Society meeting in Chicago in October. Krein said the plan is to select five schools for the final competition at the National Energy Lab in West Virginia.

For 2003, the intent is a broader, international competition with the general theme, "electrical energy use in the home." The event will focus on local activities pertaining to a specific country or region. Krein said four IEEE societies (PELS, IAS, IES and PES) are primed to take part in the program and have budgeted support funding. He said the U.S. Department of Energy is prepared to continue ifs sponsorship. A good organizing committee is mandatory, Krein said, and asked for volunteers interest in the activity. Even though the competition is biennlal, Krein said the probability is a \$25,000 item proposed for the Society 2002 budget will be an annual item.

Nominations

The Nominations Committee will meet Tuesday at noon to select candidates for Society officers and at-large AdCom members. Later in the meeting, Habetler appointed Hiro Akagi, Braham Ferreira and Ger Hurley to three-year terms on the committee. Other members of the Nominations Committee are Jason Lai, Steve Leeband Javier Uceda (terms expiring at the end of 2001) and Kevin Fellhoelter, Jose Pomilio and Kay Smedley (terms expiring at the end of 2002).

Action Item Review

Ron Harley and Franco Profumo, with Phil Krein as an alternate, will be PELS nolminees to the IEMDC steering committee. Appointed and approved.

Myers will notify the organizer of an annual battery conference to delete PELS as a sponsor without specific Society approval. Notified and completed.

Officer Reports

a. President – Habetler pointed to a written report from Division Director Tom Jahns, who was not able to attend, in which budget problems involving the IEEE were reviewed (Attachment B). The report and Habetler's submission (Attachment C) alluded to the structure of IEEE with a drawing down of Institute reserves while major income sources - publications and conferences – accrue to the technical societies. Habetler said the IEEE is basing its budget on a 5-percent return on its investment program and an adjustment of income and expenses to produce a fair allocation of revenues and expenses – a practice termed "pay by the drink" within IEEE. The Institute plan is to apply the practice to all IEEE entities.

New proposals have been put forth for income production according to a formula that calls for improved performance among the spectrum of IEEE activities. There is no accurate estimate of the 2002 assessment against IEEE entities, he said, but it will be based on financial performance and surplus and deficit. He said one probable result will be an increase in IEEE membership dues in 2002.

General discussion centered on the effect on IEEE of competing resources (e.g., El Sevier in publishing) and steps by the Institute to meet these competitive pressures. Also, some members questioned IEEE procedures in budget planning and financial management, noting the structure of IEEE has channeled revenue sources to certain entities, e.g., technical societies, while not providing adequate funds to other activities.

Habetler reviewed a proposal by an Ad Hoc committee to reorganize the Board of Directors of IEEE. The committee listed the existing makeup of the Board with 11 TAB representatives, 11 RAB representatives and 11 Institute officers and proposed a reduction to 13 members – the three presidents (elect, present and past), TAB and RAB vice presidents, secretary, treasurer and three directors each from TAB and RAB. Habetler quoted from the Jahns report and his concern "about whether this approach will be fair to all of the IEEE entities (i.e., technical societies and regions) so that the elections of these at-large Board members will not come to be dominated by some faction within IEEE."

Sentiment of the AdCom was negative, with the prevailing view that the revision will not solve a question of representation and might lead to a top-heavy organization structure – remote from the membership.

On a pending question of printed copies of the PELS Transactions for Life Members, Krein **MOTION moved that upon request Life Members of the Society may have complimentary printed copies of the PELS Transactions**. DeDoncker seconded and the motion was approved.

Habetler reported the IEMDC'99 conference posted a deficit of \$13,829 of which the Society will be charged one-third. The 2001 conference is taking place in Cambridge, Massachusetts, this week in a direct conflict with PESC. The IEMDC Steering Committee has agreed to avoid such conflicts in the future. Ron Harley reported the PCIM conference in Europe also is scheduled the same week as PESC, the result of a trade show mixup. He said the PCIM committee has stated the conflict was unintended and will not occur again.

Membership in the Society grew by 4.4 percent in the first three months of 2001 and PELS was the only society in Division II to show an increase in membership. He said the Society needs to grow the number of Senior Members and he asked AdCom members to promote the elevation of regular members to the Senior level. Krein suggested forming a Senior Member nomination committee to identify and encourage regular members to upgrade. DeDoncker suggested Senior Member activity as a Chapter activity. **ACTION: Enrico Santi will organize a Senior Member committee to encourage elevation to the higher level, tying the activity to chapters where appropriate.**

Noting no objection, Habetler declared as approved an e-mail Bylaws amendment:

Section 10.2.6 "The technical committees shall promote, organize and conduct peer reviews of digests submitted for PELS-sponsored conferences in cooperation with the conference technical program chair." (Attachment D)

Habetler said he had been informed that organizers of an international conference had approached Dan Senese, executive director of IEEE, regarding a request for an invited speaker on power electronics for the conference in Lexington, KY, in March 2001.

Operations VP - Dean Patterson reported on changes in the structure of Society techniocal committees and an expansion of responsibilities (Attachment E). He announced a new lineup of PELS technical committees recommended by the Long-Range Planning Committee (chairs are in parenthesis):

- 1. DC Systems (Jose Cobos)
- 2. Rectifiers and Inverters (Fang Peng)
- 3. Motor Drives (Alfio Consoli)
- 4. Devices, Components, Packaging (Doug Hopkins)
- 5. Transportation (Randy Frank)
- 6. Telecommunications (Bob Jurewicz)
- 7. Electronic Transformers (John DeCramer)

8. Computers in PE (renamed Simulation, Modeling and Control) (Antonello Monti)9. Education (Marcelo Simoes)

For PESC'02, these topics will be included in the technical program along with EMI and quality issues. Additional topics may be added based on submission of papers and the thrust of the conference.

Krein moved **MOTION: the creation of three new technical committees and appointment of three chairs – DC Systems (Cobos), Rectifiers and Inverters (Feng) and Motor Drives (Consoli)**. Tan seconded and the motion was accepted. The three new chairmen automatically become members of the AdCom.

Habetler said the technical committees must have sufficient activity to warrant their existence and will be involved in the selection of papers for conferences and the Transactions. In some cases, he said, associate editors of the Transactions may be appointed by technical committees. Tom Wilson questioned the idea of committees having authority to appoint associate editors and suggested that associate editors may be recommended by the committee with final appointment by the editor. Arthur Kelley commented that confusion may result if some associate editors are nominated by technical committees while others operate outside a committee structure. Rick DeDoncker urged that technical committees appoint associate editors but Bill Dunford said the editor must be the authority and make the formal appointment. He may ask for a recommendation, Dunford said, but the editor needs to retain control. Habetler encouraged technical committees to participate in paper review and selection and that the structure be flexible in the recommendation and appointment of associate editors.

Meetings VP - Dong Tan said the Society's three sponsored conferences have closed on time and have produced surpluses. Workshops are on target for closing, he said.

The Meetings Committee, he reported, is interested in encouraging the development of electronic handling of papers for conferences. The electronic processing question is on the agenda for the PESC Steering Committee meeting Tuesday.

Based on action of the Meetings Committee, Tan **MOTION: moved the AdCom** approve \$5,000 in seed money for the 2002 Computers in Power Electronics Workshop to be held in Puerto Rico. The funding was approved.

Habetler proposed and Chris Riddleberger moved **MOTION that Myers in concert with IEEE and/or others develop a plan and proposal for electronic handling of conference papers.** DeDoncker seconded and the motion was approved. Habetler said the Society favored working with IEEE whenever possible.

Tom Wilson recommended that future PESCS return to the practice of providing printed advance programs, instead of relying only on the web and e-mail.

Treasurer – Steve Leeb said the Society was budgeted to produce a surplus of \$250,500 and at present PELS is poised to conclude the year with a surplus of \$541,400 (Attachment F). The result includes a "most rosy" surplus of approximately \$280,000 from INTELEC'00.

For the 2002 budget, Leeb said he reduced the projected surplus from \$250,000 to \$160,000 including some planned increases in AdCom expenses, specifically an AdCom meeting in conjunction with PESC'02 in Australia. He said the "rippling of the belt tightening" is becoming a reality. Finally, he requested that rapid closing of conferences be continued and that conference committees seek to maintain the 15% surplus margin.

Committees

a. Membership – Enrico Santi said the membership survey has been approved with a cost of \$6,950 plus postage or a total cost of approximately \$10,000. After discussion, including one suggestion the survey go to one-fourth of the membership, it was agreed to do a full mail survey. ACTION: Habetler will provide a cover letter for the survey. Krein moved MOTION: that the Society authorize a mailed survey of the full PELS membership as soon as practical. Kelley seconded and the motion was approved.

b. Publicity Video - Santi raised the question of a planned video promoting power electronics and proposed that the video be directed to college and even high school students to describe activities and opportunities in power electronics. A problem, he said, is that power electronics is a diverse field and the video needs to cover the scope of the discipline, from factories to automobiles, from satellites to cellular, and the broad approach probably will increase costs. Habetler said he envisioned a video on power electronics in general with an appeal to a wide audience. Leeb said he has budgeted a sum of \$10,000, based on action of the AdCom at its March meeting. **ACTION: Santi will develop a committee and a concept.** Volunteers for the committee were DeDoncker, Patterson, Krein, Holmes and Habetler.

Habelter said he has ordered 500 PELS shirts at a cost of \$21 and they will be sold at conferences for \$25 each.

c. Chapters - Jaime Arau said four chapters had selected speakers for the new Regional Lecturers Program - France, Los Angeles, Morelos and Russia (Attachment G).

Arau said the best chapter award would be presented to the Russian chapter at the PESC awards banquet Thursday evening. Finalists included France, Hong Kong and Los Angeles. The AdCom suggested the possibility of recognizing chapters which applied for the best chapter award but it was decided to continue the past practice and salute the selected chapter.

Arau said new chapters were created in 2000 – Argentina, Croatia, Spain and a student chapter at the University of Guanajuato, Mexico. In 2001, chapters have been formed in Switzerland, Yugoslavia, Venezuela and a university chapter in Russia.

Arau listed activities for the future:

- Track potential new chapters
- Post on the web and in the newsletter current information about regional lecturers program and to increase the number of chapters offering this service
- Reinvigorate the use of the Distinguished Lecturer Program
- Develop an operating guide for chapters.

Arau said the Russian student chapter has asked for funds. The AdCom asked **ACTION: Arau to determine if funds may be available from the full Russian Chapter.**

d. Publications - Ron Harley reported a special issue of the transactions will be developed on digital control in power electronics and drives with Steve Leeb as editor and an editorial review board of associate editors in place (Attachment H). Manuscripts will be due 1 February 2001 with a publication of March 2003. Hatley asked if there is any challenge to an e-mail ballot which unanimously approved the concept of the special issue. No challenge forthcoming, the vote was affirmed.

Power Electronic Letters - The concept of on-line power electronic letters was outlined by Krein who said he had based his analysis on IEEE experiences (Attachment I). Additional study is needed, he said, but the preliminary assessment suggested these types of electronic letters:

- 1. brief research papers for rapid publication.
- 2. Short papers concerning specific techniques of broad use in power electronics
- 3. Awareness information provided by the Editorial Board or contributions, including abstracts of patents, conference or workshop papers or sessions.

Krein suggested that 40 papers can be anticipated in the first year of electronic letter operation with a total page count of approximately 160 pages, based on a maximum paper length of four pages. The program should be planned to grow to about 80 papers annually within four years. The program would be part of the Xplore package and as a "mirror" on the PELS webpage.

The Krein's proposal presumes the on-line letters would be available to members at no charge and non members could subscribe for a rate of perhaps \$1 per page. The package could be included in the on-line All Society Periodicals Package, if approved by TAB. The financial plan suggests a first-year Investment of \$10,000 with a rough-guess deficit of \$6,295 the second year and a slow growth toward a surplus.

Habetler expressed concern there might some overlap with articles in a PELS magazine, particularly the practitioner short papers on specific techniques. Discussion of the format included paper contact which could include items not found in a print version. Format would be downloadable probably in pdf or similar advanced form.

Leeb raised the issue of new projects in publications and potential fiscal problems that might occur. If such a project is approved, he said, the Society must come up with a formal plan – the cost, the risk, the opportunity. The potential financial impact is \$16,000 as projected, Krein said in agreeing that a written assessment is needed. General sentiment for the plan was favorable and **ACTION: Krein will continue his assessment and development of a program.**

Harley said he and Krein are working on the concept of a power electronics magazine to be developed jointly with the Power Engineering Society and Industry Applications Society. Ira Pitel will represent IAS on the program and with a PES appointment pending.

Transactions – Kelley said the 1999 page count for the Transactions was on target (1,208 against the budgeted 1,200). The 2000 budget was unrealistic at 1,500 (actual count 1,326) and the 2001 budget has been reduced to 1,320 (Attachment J). He cautioned that the page count budget may not be achieved. He expressed concern about the slow review process still plaquing the Society – with the picture virtually unchanged since the last meeting. Awaiting review are 217 papers with some slow performances by 30 percent of associate editors - on the plus side, 70 percent of AEs are performing in satisfactory style. Kelley presented statistics on papers and their acceptance rate and outcomes. Based on statistics of 18 months, about 50 percent of papers submitted are accepted and approximately 250 papers are received. With a published rate of seven pages per paper, the projected page count suggests a lower page count than scheduled. (Later, he reported his count of 426 pages had included the July, 2001 issue where in fact it covefed only the January-May period.) Kelley moved MOTION: the Transactions page count reduced for 2002 to 1.150 pages. Krein seconded and the motion was approved. ACTION: Leeb will advise IEEE of the page count reduction.

Habetler raised the question of prodding associate editors to complete their reviews in a timely fashion. He asked if there should be recognition of those who are performing well and those who are not. Krein and Leeb recommended that technical committees become involved in the review process.

Krein moved **MOTION: to authorize the editor of the Transactions to link final publication of papers to active participation in the review process.** Kay Smedley seconded and the motion was approved.

Newsletter – Gene Wester said two additional requests for proposals for printing and mailing of the Newsletter were distributed. There was one response. He said he and Myers will pursue a solution. He said IEEE has recognized that the Society is looking at other publishing sources and has offered to improve timing from receipt of electronic file to mailing. He said the performance by IEEE was much improved. The mail system, however, remains slow. He said turnaround of the Newsletter by IEEE in two weeks is about as good as can be expected.

Electronic Media – Krein said the site is working at the University of Illinois and he is completing transfer of all materials to his jurisdiction.

IEEE Press – Bill Hazen submitted a written report (Attachment K).

e. *Awards* - Chris Riddleberger reviewed awards for the William Newell, Distinguished Service, Richard Bass Outstanding Young Power Electronics Engineer, Best Chapter and transactions prize papers (Attachment L). Awards will be presented at a dinner Thursday evening.

f. Constitution and Bylaws – An amendment to the Society Bylaws was included in the President's report.

g. Education – Marcelo Simoes was not present but a written proposal was received and included in the minutes (Attachment M). No action was taken.

h. Long-Range Planning – Santi submitted a written report from Jerry Hudgins (Attachment N) and Habetler said the committee will meet Wednesday.

i. **TC** on Simulation, Modeling and Control - Antonello Monti noted the new name of the Computers in Power Electronics Technical Committee. He reviewed the workshop held at Virginia Tech in the summer of 2000and said he has prepared a call for papers for the 2002 workshop to be held in Puerto Rico (Attachment O).

j. Automotive Power Electronics - No report.

k. **Telecommunications Energy** – Riddleburger reported that a recipient for the first INTELEC Fellowship has been selected – a student at the University of Illinois – and a presentation involving INTELEC officers is being arranged.

I. Electronic Transformers – No report.

m. **Standards** - Jason Lai said P1573 – Recommended practice for Electronics Power Subsystems: Parameters, Interfaces, Elements and Performance – is under development with completion scheduled by 2002. The project is chaired by Dong Tan.

n. Liaisons

Asian Liaison – Tatsuo Sakai said a power electronics seminar on INTELEC'00 was held in January and technical meetings have been held with energy engineering in electronics and communications (IEICE) in December, January, February and May. (Attachment P). A meeting was held in January with the Semiconductor Power Conversion unit of IEE Japan.

European Liaison – Technical support for and participation in an EPE conference inj Austria was approved by the Meetings Committee, DeDoncker reported.

Region 9 Liaison - No report,

Other business

Wester reminded AdCom members that articles are due for the next issue of the Newsletter and Habetler asked that all submitting members provide photos for use with articles.

Myers reported the IEEE has developed a favorable travel plan for members and has encouraged Societies to promote the program (Attachment Q).

Next Meeting

The PELS AdCom will meet in Chicago on 30 September at the Hyat Regency Hotel in conjunction with the IAS Annual Meeting.

Adjourn

The meeting was adjourned at 5:23 p.m.

Submitted,

Robert Myers PELS Administrator