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Meeting Minutes
IEEE P1100 Working Group
Revision to Emerald Book IEEE Std 1100-1999

2000 IEEE IAS PCIC Technical Conference
San Antonio, Texas
September 8, 2000

1.0 Call to Order

The Chairman, Doug Dorr on Saturday, September 8, 2000 at 11:00, called the meeting to order.

2.0 Introduction of Attendees

All attendees of the meeting introduced themselves and were requested to sign in on the sign up sheet that was distributed. The updated attendance list is attached to the minutes. There were 6 members and 2 guests present at the meeting.

3.0 Approval of Previous Meeting Minutes

A motion was made and seconded to approve the minutes from the meeting at the 2000 IEEE IAS I&CPS Technical Conference.

Discussion followed and R. Schuerger requested a correction to the minutes. Under section 4.1, Chapter 8 was listed as "Grounding" instead of "Recommended Design and Installation Practices".

The motion passed unanimously with the change.

4.0 Old Business

4.1 Status of the PAR

The PAR for the Emerald book has been sent in to the Standards Board. The board had several questions concerning the need for a PAR. D. Dorr explained to the board that the standard was in need of revision. It simply could not be reaffirmed.

The PAR is in the approval process at the Board level.

4.2 The Use of 1.73 for Calculating Neutral Currents

Mel Saunders would like the working group to review the use, and more importantly, the validity of estimating neutral currents in three-phase four-wire systems that serve predominantly power electronic loads. As it stands now, the Emerald book states that the theoretical maximum neutral current is 173% of the phase currents. A good basic explanation is needed for this recommendation. D. Dorr and C. Melhorn will provide text, and a case study, to validate the use of this number.

5.0 New Business

5.1 Website and URL Layout

The layout of the website for the working group has been completed. Regular updates to the site will occur as new information, such as outlines and drafts become available. When new information is available, C. Melhorn will send an e-mail to the membership listing.

5.2 Review of Chapter Outlines

Chapter 1 – No report. Chapter will be completed once all other chapters are in order.

Chapter 2 – No report. Definitions will be added and deleted based upon the final drafts for each chapter.

Chapter 3 – A new outline for Chapter 3 is available on the website for the working group. The organization for Chapter will be revamped to match the layout of the entire Emerald book.

Chapter 4 – A new outline was provided for Chapter 4 and is available on the website. Chapter 4 will be rearranged so that it follows Chapter 3 in more coherent fashion. Chapter 4 will provide more definitions on power quality events. R. Schuerger is looking for volunteers that can provide input to Chapter 4.

Chapter 5 – A new outline was provided for Chapter 5. Chapter will undergo a major update as many new power quality related measurement devices have become available on the since the chapter was last revised. It was noted that it is still essential that the chapter focus on measurement techniques and using true RMS measurement equipment as we can assume that many readers may be new to the PQ area. The committee should not assume that the audience for the book is as knowledgeable on PQ as the committee members, therefore basics should not be omitted.

Chapter 6 – No report. Ken Michaels has not been in contact for over a year. If he cannot be located within the next three months or does not contact the WG chair, we will solicit a new chapter 6 chair. WG members Afroz Khan and Phillip Lim have indicated an interest in filling that position. Member Larry Guzy has also volunteered to support that effort at whatever level the committee needs.

It was noted that chapter 6 is currently very well suited towards coordinating an investigation and is very comprehensive about conducting a wiring and grounding survey. Several additional investigation methodologies need to be expanded on. The addition of text covering the methodologies and techniques for performing voltage sag analysis, transient induced failure surveys and EMI/RFI surveys are a few of the suggested areas of expansion.

Chapter 7 – A new outline has been received for th chapter and is available for review on the P1100 website. Tom Gruz is looking for input on the outline and additional chapter volunteers.

Don Zipse expressed concern over the absence of some text and perhaps figures explaining the method used by many transformer manufacturers when connecting the high and low side neutrals together in a transformer. D. Zipse will provide text for this section in Chapter 7.

Chapter 8 – A new outline has been received. It is available on the website. Several new sections have been added to this chapter. The comments was noted that chapter 8 needs to be coordinated with Chapter 7 such that the equipment described in 7 is expanded on “application wise” in chapter 8.

Chapter 9 – The outline was not available at the working group meeting. The new outline is being prepared. Changes are planned in the areas of grounding related application issues.

Chapter 10 – No report. This is a new chapter. The suggested focus of this chapter is control and power electronics in industrial facilities. Information on the equipment such as PLCs, VFDs, sensors, etc., are deemed appropriate for this chapter.

Please review all outlines and send any comments or suggestions to the Chapter Chairperson for that chapter. The chairpersons and their email addresses are listed on the website.

5.3 *Modify Timeline for Completion*

A new timeline has been setup for the completion of the next revision by September 2002.

- All Chapter outlines are due by October 31, 2000
- The first draft of each chapter is due by March 31, 2001 for review at the 2001 IEEE IAS I&CPS technical Conference in May 2001
- The second draft of each chapter is due by July 31, 2001 for review at the 2001 IEEE IAS Annual Technical Conference in October 2001.

The current schedule calls for balloting the Emerald book in September 2002.

5.4 *Volunteer for Editorial Chairperson*

The working group is still looking for a volunteer to be the Editorial Chairperson.

5.5 *Volunteer for International Conversion Coordination Chairperson*

The IEEE requires that all units in any standard be in international units. Mel Saunders has volunteered to be the chairperson for the International Coordination Conversion.

Once the second draft has been submitted, Mel will review each chapter draft and forward any changes required to the chapter chairs.

6.0 *Action Items*

All old action items were completed prior to the working group meeting in San Antonio. Several new action items were added to the list as evident in the table below.

Explanations for each action item follow the table.

Old Action Item	Assigned To	Due Date	Status
Write one page "What Std 1100 is about" description for IAS Rome presentation	Doug Dorr	Jan 00	Completed
Investigate and create web hosting area for the working Group	Chris Melhorn	Jan 00	Completed
Don Zipse coordinate mtg at PCIC	Don Zipse	July 00	Completed
Chris Melhorn to update website	Chris Melhorn	Aug 00	Complete
New Action Items	Assigned To	Due Date	Status
Setup Username and Password for website	Chris Melhorn	Oct 00	Complete
Setup mailing list for working group	Chris Melhorn	Oct 00	Complete
Send out copyright notice to working group	Chris Melhorn	Oct 00	Complete

Explain editing functions in MS Word	Chris Melhorn	Oct 00	Complete
Submitt outlines	Chap. Chairs	Oct 00	In process
Explain use of 1.73	D. Dorr C. Melhorn	Apr 01	In Process
Conversion to Metric	Mel Saunders	Sep 02	In Process
Reference vs. Bibliography	Doug Dorr	Oct 00	In Process

6.1 Setup Username and Password

The official policy of IEEE Standards is that draft standards must be placed in password-protected web areas. If you are an IEEE P1100 working group member, or feel that your interests in this area warrant your review of the draft, then you may access the draft from this site. In order to access the secure portion of the website, you must enter the following username and password when prompted.

Username: **p1100**
 Password: **eelevon**

The username and password are case sensitive

6.2 Setup Mailing List for Working Group

The IEEE provides an e-mail service to working groups. This service allows members to subscribe and unsubscribe to various e-mail lists. The P1100 working has an e-mail list. Follow the directions below to subscribe to the service.

Subscribe to the list

subscribe [<list>] [<address>]

Subscribe yourself (or <address> if specified) to the named <list>.

Unsubscribe to the list

unsubscribe [<list>] [<address>]

Unsubscribe yourself (or <address> if specified) from the named <list>.

Commands should be sent in the body of an email message to:

majordomo@majordomo.ieee.org.

Commands in the "Subject:" line are NOT processed. All commands MUST be in the BODY of the message.

If you have any questions or problems, please contact:

majordomo-owner@majordomo.ieee.org.

Example

To subscribe to the P1100 mailing list, follow this example. Send e-mail to majordomo@majordomo.ieee.org. In the **body** of the e-mail provide the following commands.

subscribe stds-1100 youremail@youraddress.com

Using the Service

To use the service, simply send an e-mail to stds-1100@ieee.org. All members of the mailing list will receive the e-mail.

6.3 Send Out Copyright Notice

The IEEE requires that a copyright notice be placed on the front page of each chapter draft as well as in the footer of each page of the draft. The text for the copyright notice is given below. Please adhere to this format for all outlines and drafts.

Front Page

Project P-1100

Chapter ##

Chapter Title

Draft #

Date of draft

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New York, NY 10017, USA
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6.4 Editing Functions in MS Word

In an effort to better coordinate the editing of drafts, the following rules shall be adhered to.

1. The format of all documents shall be Microsoft Word.
2. The chapter chair retains the current version.
3. Working members may download copies of the latest draft from the website or request a copy from the chapter chair.
4. When changes are made to the draft, the working group member shall use the “Highlight Changes” function found under the “Tools” menu option in Microsoft Word. Select the Tools|Track Changes|Highlight Changes option. When the dialog box appears, turn on the “Track Changes While Editing” feature. Any changes made to the document will reflect the editors name, date, and time of change. Additions and deletions will be highlighted appropriately. **Note: this function must be activated prior to making any changes to the document.**
5. Once all changes are made, save the document and e-mail it to the chapter chair.
6. The chapter chair will in turn review the changes and accept or ignore the changes as appropriate.
7. Once all changes have been completed, a new version of the draft will be posted on the website.

Please check the website for a new version prior to editing the drafts.

6.5 Submit Outlines

Outlines are due for each chapter by October 31, 2000. The new outlines should be e-mailed to the Secretary, Chris Melhorn and the Chairmen, Doug Dorr. c.melhorn@ieee.org and d.dorr@ieee.org

6.6 Explain the Use of 1.73

Mel Saunders would like the working group to review the use, and more importantly, the validity of estimating neutral currents in three-phase four-wire systems that serve

predominantly power electronic loads. As it stands now, the Emerald book states that the theoretic maximum neutral current is 173% of the phase currents. A good basic explanation is needed for this recommendation. D. Dorr and C. Melhorn will provide text, and a case study, to validate the use of this number.

6.7 Conversion to Metric

Mel Saunders will be coordinating the conversion of the IEEE Std. 1100-1999 to the international system. This conversion will take place after the second draft has been submitted.

6.8 Reference vs. Bibliography

References are those standards that must be on hand and available to the user of the standard for it's implementation. Documents such as papers, magazine articles, and books shall not be used as references but are instead included in a bibliography and may be cited as such in the text of the standard. Note that a standard can be a bibliography item if it is not required to implement the recommendations of the standard. For example C62.41 is a good bibliography item because it has good information on the transient or surge environment whereas NFPA 70 is a reference that should be on hand if you were going to install an isolated ground properly.

6.9 Definitions

English words shall be used in accordance with their definitions in the latest edition of Webster's New Collegiate Dictionary. Electrical and electronic terms not defined in that dictionary shall be used in accordance with their definitions in IEEE Std 100. If those definitions do not reflect the specific usage in the document then appropriate definitions shall be provide. Only definitions specifically useful to P1100 should be in the definitions section. Each definition shall be clear, brief concise and self contained.

7.0 Next Meeting

The next meeting is scheduled for the IEEE IAS I&CPS Annual Technical Conference May 2001. Information on the meeting will be posted on the P1100 website when available.

8.0 Meeting Adjournment

A motion was made to adjourn the meeting. The motion was seconded and passed unanimously.