

THE PROGRAM MANAGER

PM

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A guide for NCEE SME Project Managers (PM)

BACKGROUND:

NCEE, the National Coalition for Electronics Education, is a Not for Profit association, or coalition, formed in 2002. Participating national associations, educational institutions, interested companies and individuals have combined their efforts and talents for two primary reasons:

#1. To, as representatives of the electronics and appliance industries, relate to the educational community the skills and knowledge competencies that service workers must have in order to provide good installation, repair and maintenance of products.

#2. To market electronics and appliance service as an enticing vocation for youngsters to consider.

NCEE STRUCTURE

Each January at the annual member meeting, NCEE participants elect a five person Executive Committee to conduct the affairs of the organization. At least once a month members and participants meet via conference call for board meetings. Officers and board members volunteer to serve without pay.

To obtain funds to operate and accomplish the NCEE mission activities, dues of \$350/yr are paid by participating groups. The funds are used for organizational requirements, such as the \$500 fee required by the IRS for NFP status, to produce information brochures, web and conference call costs, and normal administrative expenses. Most work has been volunteered by participating organizations.

The current officers, listings of supporting organizations, industry links, mission statement, frequently asked questions and other information useful in acquainting people with NCEE and its projects is outlined on NCEE's website: www.ncee-edu.org. In addition, each of the current working competencies committees of SME's (Subject Matter Experts) is listed.

COMMITTEE METHODOLOGY

As with other organizations, each project in NCEE is driven by a committee. Each project has a Program Manager. The Program Manager is the committee Chairperson. Each Program Manager is listed on the web site, followed by the listing of the active committee members. All of the listings include the e-mail addresses. (Thus all NCEE people can intercommunicate with each other).

PROGRAM MANAGER (PM)

Each major area of electronics or appliance training (self or formal-classroom) is led by an individual. That person has experience in the discipline. Practicing technicians, instructors and people from engineering services and training departments at product maker companies are the current Project Chairmen (PM) for the 12 active skill standards, or competencies committees presently working in NCEE. (as of 4-1-04)

The Program Manager in NCEE operates in the following manner:

- a. He/she has volunteered to assume responsibility for producing or revising a specific skill area.
- b. In conjunction with the officers and board members the Chairman (Project Manager) outlines and defines the skill that the committee will work on.
- c. Because the board input needed for valid competencies requires active participation from each segment of the industry, the chairman or PM can't be expected to make all the decisions, collect all the ideas, and be able to view the educational needs by himself. Thus, in cooperation with the

NCEE participants, the program manager needs committee members that will help provide broad input.

ACQUIRING PROJECT COMMITTEE MEMBERS

It may seem that a project already has a number of committee workers named and willing to help. These may already be posted on the SME page of the web site.

If there are no committee members yet, the program manager solicits volunteers during conference calls, asks the officers and other board members to seek qualified volunteers from their companies or groups, or directly solicits a representative group of knowledgeable workers to serve on his/her committee.

The manager should greet each SME at the beginning of his term. Welcome them individually, or as a group. The manager should seek reaffirmation from each SME that the committee member does, in fact, want to be a member of the project committee. A listing of a couple dozen SMEs is good to have but each member needs to indicate his/her willingness to serve. Each NCEE project is important. It is shaping the electronics and appliance industries.

Communications is primarily via e-mail. Thus the program manager is not burdened with any more work than people you find everyday participating in youth groups; political activities; school or work collective efforts. The only difference is that NECC is a nationwide effort. The impact the committee has affects the entire country.

If insufficient committee workers are committed, the manager should tackle that problem and solve it. Send e-mail; plead at meetings; look inside your own organization; find willing volunteers. Most people will help if they are qualified and if they can anticipate what the job entails. Spending some effort on acquiring at least two dozen SME's produces results. Keeping in constant contact with committee members lets them know they are valuable and appreciated by the chairman, by NCEE and by the industry.

THE TASKS

There are other tasks in any organization that are best handled by committees, but in NCEE, the Skills Standards or Competencies, which we choose to display as content for electronics courses, is our number one job. We must outline the competencies for all educational institutions to review and mold their courses around.

How do we gain approval for a Competencies Listing? (It is best here if you review the several competencies now posted on the ncee-edu.org website). Notice each competency has over 100 category-items listed. These are the tasks a trained worker should be able to master or the knowledge he/she must have.

ORIGINATING COMPETENCIES

If your committee is developing competencies for the first time, the job is tougher than simply reviewing those that have been accepted by NCEE previously. Number 1 job is developing the competencies, describing just what a student needs to know and be able to do. Number 2 job is reviewing those competencies previously approved, seeking suggestions for changes or updates, and gaining reapproval.

THE PROCESS

To generate totally new competencies for a category of training, certification, or schooling that has not been dealt with yet in NCEE, it is accomplished in the following manner:

The PM, (Chairman), possibly in collaboration with one or more other knowledgeable technicians, decides on a representative short-list of the major areas of learning the worker will need. This listing can always be changed later, but it is intended to give a broad picture of the major areas a course should cover. Think of it as the 'Contents' page of a study guide. 15 to 25 major CATEGORIES of subject matter is a good size list. It should not be much larger, as the human mind can't assimilate dozens or hundreds of topics at once.

Also, the CATEGORIES should be such that they fit on one sheet of paper. People can get a good idea of what the training will consist of from such a short list.

After all of the committee members have been asked to help mold the **CATEGORIES** listing and after agreement is reached, the program manager presents the list to the NCEE Board conference call meeting. Hopefully the consensus CATEGORIES list has also been sent to the entire NCEE participant e-mail list so that as many industry members as possible have had a chance to edit and comment on the list.

NCEE will approve the CATS listing at a meeting. It may be there are spelling, punctuation, grammar or Technical errors. Some participants may feel additional changes need to be made. This delays passage of the CATS list for a month. If the errors are small, the list may be approved by making the corrections, then sending it to the NCEE list, the board and the committee requesting approval so that the next step can then be taken. This can be done via e-mail in only a few days after a board meeting.

The **ITEMS** listing is the next step. The PM sends the CATS listing to the committee members and asks them to brainstorm it. As Step #2 in the approval process, this is the one that is usually most fun for all participants. The sky is the limit! The job is to pencil in each and every subtopic, or ITEM, under each of the major CATEGORIES. It is not unusual to have a dozen or so ITEMS under one CATEGORY. Items need only be named. They do not need to be explained or defined as to how they are used.

The Chairman takes all comments, creating a long list of ITEMS under each category and numbering them starting with the number 1.0. Categories sequence 1.0, 2.0, 3.0, etc. ITEMS use this numbering format:

- 1.0 BASIC THEORY
 - 1.1 Atomic Structure
 - 1.2 Electrical Current
 - 1.3 Resistance
 - 1.4 Voltage
 - Etc.

The PM may find some new suggestions are so outstanding he needs to send them out to the committee for consideration. Others may be off in 'left field'. It is up to the committee chairman to send out the comments and suggestions for review by the committee. Committee members should detect ridiculous suggestions or debatable Items, helping the chairman to discard those but keeping an eye open for new ideas that are on the cutting edge of technology and thus should be included in the ITEMS list.

Once the ITEMS list has been agreed to by the committee, the Chairman presents it to the NCEE as a body via e-mail attachment. This gives one more opportunity for anyone participating in NCEE to also make comments or head off misdirected suggestions.

COMPETENCIES

Step #3 in the process is to generate competencies. These are a little different than Skills Standards, but both terms pretty well explain the description of the knowledge and skills a course graduate should have to properly perform electronic or appliance service. The Competencies are what we have been striving for in the 3-step process the committee has used.

To construct Competencies is easy. First, each of the topics has already been agreed to. Everyone has agreed with the major CATEGORIES listing and everyone has reached consensus on what needs to be taught under each category – the ITEMS. The PM, perhaps with some help, now takes the ITEMS listing that has been approved by NCEE and verbalizes each ITEM. This requires some use of the dictionary and may need to be reviewed by people who are well versed in the English language. The competencies tell specifically what the student or examinee should know and be able to do after training.

Once the Comps have been edited they are sent out in their final form for one last review. The next meeting of NCEE then can vote to approve them or to make further modifications. The job is then completed.

PASSING THE TORCH

Program Managers should be looking for a replacement Chairperson (PM) during their term. They can remain the Chairman for a second term, but they can also look for other committees or duties to help move NCEE ahead. By serving in an exemplary manner, the PM inspires the other project managers and committee members in the organization to do their job.

Competencies development is a critical job. Most efforts in technical societies end up being the work of only a few people. Sometimes one or more of that small group has a personal agenda that colors the final competency product. It is not what the entire industry really needs. But the job gets done (sort of) and the technical society, in an effort to show progress, often accepts a less than perfect competency document. It may take years before a logical and legitimate competency eventually gets accepted. The answer to that is to assure that each segment of the industry is represented on the committee in charge in the beginning.

After the Comps have been approved by NCEE and posted to the website, that is not the end of the committee's work. The committee now serves the purpose of holding dialog should the comps be challenged as having some defect. Thus, the committee is now a Standing Committee of NCEE. During the year prior to the required review of that competency, the committee should be gathering any new ideas that can streamline or modernize the competencies. Should changes be desirable, the Program Manager can use the same procedure for seeking further input, for presenting upgrade concepts, and for asking for review of the new competencies. The same 3-step process (CATEGORIES, ITEMS, COMPETENCIES) can be used, although, if no, (or few) suggestions for changes are seen, the comps can gain approval with no changes, or only a few that the Chairman or Program Manager sees as not critical.

Program Managers will do well to name a Vice Chairman, a committee member who shows willingness to comment, makes suggestions that show he has reviewed each request by the Program Manager, in detail, and has been prompt in returning his thoughts.

The Program Manager should send an electronic photo to eta@tds.net for inclusion on the NCEE website.

Serving as a Project Manager is a lesson in Leadership Training. All organizations need participants who understand how to get things done. Poor organizations have people who do not know how to accomplish a group task. They may not know how to get started or how to outline the task. They may never have asked another person to help. They may not know what the end goal is and they might not want to spare any personal time that doesn't produce an immediate cash benefit for themselves.

Serving on an NCEE committee may require an hour a month at the conference call for those who have reasons to be on the call. There is no charge for the phone call. Others may find they spend another hour or so a month, making comments or communicating about their project or about NCEE initiatives in general. Everybody has time to support important efforts. Whether that means jotting down ideas while the interminable commercials are wasting your time while watching TV; or whether it means getting to work a half hour or so early occasionally, to generate a report, read minutes, send in a nominee for a committee position, make a suggestion for the website, etc. there is plenty of time for NCEE activities. Those who claim they have no time may not know what the task is. Some don't want to be embarrassed by asking questions. Most organizations have those who only want to see their name in 'lights' but have no intention of exerting any efforts to improve their industry.

NCEE is fortunate in having many capable leaders guiding it towards its goals. Check the NCEE web at www.ncee-edu.org for up to date information on all-industry projects, progress and goals.

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