

Newsletter

IEEE Professional Communication Society

PCS to Present Specialty In-House Courses

The PCS Education Committee is gearing up to present in-house courses on effective writing and speaking. The first is ready (see description on pages 10 and 11), having completed pilot testing during the first half of 1989. Now the education committee is seeking the help of PCS members who can identify people they should contact in private and public sector organizations.

"We've designed the technical writing course specifically for in-house presentation so we can tailor it to suit the particular needs of each group we meet," Ron Blicq, designer and key instructor of the writing course explains. "And the cost is considerably lower than that of a 'travelling' course offered in a local hotel."

He and Nancy Corbin (who is spearheading the development of courses in effective speaking) need your help in getting information about the courses into the hands of potential users.

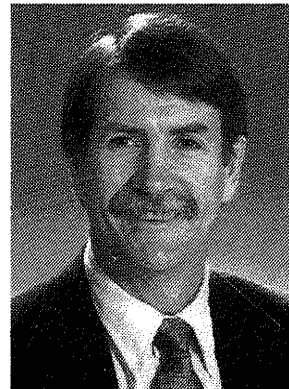
(continued on page 5)

Inside

Letters to the Editor	2
Pseudointerrogatives	4
Membership Directory	6
Constitution Amendments	7
PCS's WR-1 Writing Course	10-11
Tools of the Trade	12
Careers Conference	17

Profile on Dan Safford—A PCS Member in Action

Dan Safford is currently an instructor with Boeing Aerospace & Electronics Employee Training and Development organization. He teaches—and has taught—engineering and non-engineering personnel how to:



- Write reports, memos, and letters
- Write proposals
- Manage proposals
- Define programs for proposals
- Manage the writing project
- Deliver effective presentations
- Prepare visuals for presentations

In addition, Dan has developed an in-house technical writing course, and teaches a writing class for non-engineering personnel. He also teaches writing classes that help resolve specific problems. While most of his assignments keep him in the Seattle area, Dan has taught classes for Boeing personnel in such places as Huntsville, Alabama, and at NASA's Ames Research Center in Sunnyvale, California.

Before going to training he spent nearly three years in Boeing Aerospace and Electronics Proposals Development Organization (PDO). There he advised proposal teams on defining their programs; developing proposal strategies; and managing, planning and writing their proposals. In this environment he learned a great deal about how to communicate complex technical ideas clearly, succinctly, and persuasively. He also discovered the importance of effective time

(continued on page 3)

From the Editor . . .

We attend professional conferences for many reasons. For most of us, the primary reason is professional growth and development. Also important are the professional contacts and friendships that we build each year.

In terms of membership, PCS is a relatively small society in the IEEE, thus, our conferences afford a unique opportunity to meet new colleagues and share new ideas. For this reason, PCS tends to prefer a smaller, more congenial hotel atmosphere for its conferences.

The Garden City Hotel, site of IPCC '89, provides such an environment. It is located on Long Island, about twenty minutes from JFK and Laganardia airports, with public transportation across the street to get you into the downtown area.

To reap the full benefits of IPCC '89, make your hotel reservations now. September 25, 1989 is the cut-off date for reservations. After that rooms will be available only on a space available basis. Be aware that there are no other nearby hotels! To make your reservation, please use the form on page 16, or call 800-547-0400.

We look forward to seeing you at IPCC '89!



Letters to the Editor

I heartily endorse Les Mots "Injustes" (Newsletter, March, page 3). English is a beautiful language but it is being cheapened by carelessness, ignorance and Madison Avenue.

My current cause (lost, probably) appears in the first paragraph of Les Mots, "... and presto! you've got a new verb or noun." What does the vulgar phrase "you've got" say that "you have" doesn't say simpler and with no change in meaning or emphasis?

When a person is faced with writing or saying "I've got," "You've got," "He's got," that person should say to himself or herself, "It's gotta go!" and use its nicer counterpart, "It has to go" or, better yet, "It must go."

—Ron Eames



Newsletter Deadline

Articles, news and comments for publication must reach the editor by the following dates:

Issue	Deadline
November	September 22
January	November 24

Send your contributions to Deborah Flaherty Kizer, AT&T-International, 1200 Mt. Kemble Avenue, Room A2B19E, Basking Ridge, NJ 07920.



IEEE Professional Communication Society

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Rudy Joenk, Vice-president
Nancy Corbin, Secretary
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IEEE Professional Communication Society Newsletter is published five times a year, January, March, June, September and November, by the Professional Communication Society of the Institute of Electrical and Electronics Engineers, Inc., 345 E. 47th St., New York, NY 10017. One dollar per member per year (included in Society fee) for each member of the Professional Communication Society. Printed in U.S.A. Second-class postage paid at New York, NY, and at additional mailing offices. **Postmaster:** Send address changes to IEEE Professional Communication Society Newsletter, IEEE, 445 Hoes Lane, Piscataway, NJ 08854.

Editorial correspondence: AT&T-International, 1200 Mt. Kemble Avenue, Room A2B19E, Basking Ridge, NJ 07920. Articles, letters, and reviews from readers are welcome.

Profile on Dan Safford

(continued from page 1)

management in helping the teams deliver their proposals within a tight timeframe.

While with PDO, Dan also helped engineering teams prepare the annual Independent Research and Development (IR&D) technical plans. Over 100 of these tech plans are written per year; each is evaluated and scored by government evaluators. Dan wrote a set of instructions for preparing the documents, and has given mini seminars on how to write these plans to get the highest score. He also helped set up an in-house "red team" review process for these reports.

Dan also established and chaired a Quality Improvement committee charged with assessing the writing needs—from both proposal and non-proposal standpoints—of the client population. As a result of that committee's findings, the group was able to develop classes and briefings that addressed those needs.

Before coming to Boeing, Dan was a college teacher. He served as Assistant Professor in the Communications department at Oregon Institute of Technology (OIT). There he was Curriculum Coordinator of the Technical Communications Program while the department was developing a Technical Communications Option. This is a program that allows students to major in a technical field while taking a minor in technical communications. Dan developed two classes for the option: Software Documentation Development and Publication Design and Production.

At OIT he also taught composition, business writing, speech, and creative writing, and he established and was faculty advisor of *SAWMILL*, OIT's first student literary journal.

Prior to working at OIT, Dan was an instructor at Kansas State University, where he helped establish the technical writing program. While at KSU, he also served as editor of *Touchstone*, a literary journal, and was co-founder and editor of *Literary Magazine Review*.

Dan has a Bachelors degree in English from Utah State University, and a Masters in English from Kansas State University. He has published both fiction and non-fiction; his stories have appeared in *Kansas Quarterly*, *Writers Forum*, and elsewhere, and he has had articles in *The Writing Instructor*, *Teaching English in the Two Year College*, and other journals.

Dan's written a novel, two thirds of which has been published as short stories in various quarterlies. He has written software documentation, and has written and edited a wide variety of technical papers and reports. He has also delivered presentations on writing to the National Council of Teachers of English (NCTE), and on proposal development to the IEEE Professional Communications Society (PCS), and the Project Management Institute (PMI).

As a volunteer trainer with the United Way of King County (Seattle), Dan teaches the basics of non-profit board membership to new members of boards of directors for non-profit service agencies. He also serves as a volunteer proposal development consultant with various agencies in the area; he advises local agencies how to plan and write grants to funding sources. While at OIT, Dan served on the executive board of the local women's crisis center, and he worked as a tutor at the local adult basic education program.

Over the years Dan has worked variously as a logger, a short order cook, a stockboy, a carpenter, a fork lift driver, a ranch hand, a truck driver, a freelance trainer, an advertising salesman, a delivery driver for a wholesale greenhouse operation, a freelance editor and writer, a jack hammer operator, an explosives handler, a consultant on proposal development, and a roughneck on an oil rig (in no particular order).

Dan has always enjoyed diversity, and seems to have a voracious appetite for new things. That's one of the reasons he enjoys working in the aerospace field; there is always something new to discover, always a technological tidbit here and there to pick up on. Being around such activity is stimulating, and it's especially gratifying to realize that as an instructor/writing consultant he plays a role in making it happen.

Dan is author of Booklet 4, "How to Write a Proposal" of our CommuGuide Series.

His accomplishment record speaks for itself. We are indeed honored to have Dan as a friend and member of PCS and wish him the best of luck in the future.

Dan Safford—we salute you!

—Lois K. Mays
PCS Public Relations



Pseudointerrogatives As Inhibitors of Usability

A conversational practice that is blossoming insidiously in writing is the use of the so-called "wh-words"—*how, what, when, where, who, why*, and sometimes *which*—as false grammatical objects. Because the wh-words are often and correctly used to introduce questions, this paper refers to them as *pseudointerrogatives* when they are employed in the objective case.

The overwhelming bulk of speech is extemporaneous, and it often happens that the most appropriate object of a preposition or the semantically best direct object of a verb fails to spring to mind. Thus, you might tell your spouse to *get what* he or she wants from the refrigerator. Or you might talk *about who* else has been invited to tomorrow's party. This doesn't seem to reduce understanding of the spoken word, but it can, if overdone, muddy written communication appreciably.

Wh-words are most properly part of the syntax of questions. For instance, it would be difficult to ask your plumber about the nature of his actions without using the interrogative pronoun *what*. It might well pose a problem if you tried to query your teenager about his or her intended destination without using the interrogative adverb *where*. This is as it should be. For this reason interrogative words exist.

Most editors, I suppose, would flag a sentence that began "Increased productivity is when . . ." as faulty predication. Rarely, though, do editors take "pseudointerrogation" to task. The reason, it turns out, is that such usage has had a long, if not honorable, tradition. Like a tax loophole, "it's all perfectly legal." For example, in the expression *information on where to direct a complaint*, the object of the preposition *on* is not the interrogative *where*; it is the whole complex adverbial phrase, *where to direct a complaint*.

The same can be said of pronouns. For example, in the expression *the question of who has jurisdiction*, the object of the preposition *of* is not the pronoun *who*; it is the whole pronominal clause, *who has jurisdiction*.

Because interrogative objects are grammatically acceptable, should we perhaps simply condone them—especially in view of their proliferation in the spoken word? With split infinitives and dangling prepositions

no longer considered flagrant errors, should we perhaps ignore this "harmless" practice as well? If the practice were indeed harmless: of course. But the overuse of pseudointerrogatives is probably as harmful as indiscriminate shifting of tense or exorbitant use of the passive voice.

The focus of this potential danger seems related not to grammar or even to semantics, but rather to the realm of usability. Clarity and ease of comprehension tend to be reduced by the overuse of ostensible interrogative words when they introduce direct objects of verbs or objects of prepositions. Relative lack of clarity and comprehensibility make the afflicted documentation less usable.

Overuse is the key word here. Like the occasional occurrence of the passive voice in otherwise direct and active text, the occasional pseudointerrogative object can actually serve to accentuate what [!] niceties the author introduces. But chronic, unmitigated, unrelieved use of pseudointerrogatives can smother the most robust and interesting material.

An increasing density of interrogative objects progressively blocks the meaning of what often passes for direct and plain English. Look again at that last sentence. Wouldn't it have been better to write . . . *blocks the meaning of seemingly plain English?* Things were progressing well until the pseudointerrogative *what* raised all kinds of possibilities.

A grammatical object is an answer that qualifies, identifies, or explains something. A pseudointerrogative object, however, introduces a question relative to that "something." Our minds must then "shift gears," as it were, to accommodate an additional level of complexity introduced by the pseudointerrogative words. In isolation, such shifts pose no problem to the power of the human brain. Like a single pebble tossed into a puddle, an isolated pseudointerrogative does not sully pristine clarity of meaning. Like repeated pebbles into the puddle, many pseudointerrogatives make the meaning much more murky!

I have claimed that pseudointerrogative objects are insidious. After becoming sensitized to them, I was astounded at their ubiquity. (Look there! I almost wrote, "I was astounded at how often I found them creeping into my work.") You too might be surprised at the way pseudointerrogatives have infiltrated your prose. Assume your most objective stance, relax, and consider the following juxtapositions. See whether you agree with me:

PSEUDOINTERROGATIVE:

The user **can** retrieve what he needs.

CONCRETE OBJECTIVE:

The user **can** retrieve **needed information**.

PSEUDOINTERROGATIVE:

... a question of **who** is going.

CONCRETE OBJECTIVE:

... a question of **attendance**.

PSEUDOINTERROGATIVE:

Determine who produces the package.

CONCRETE OBJECTIVE:

Choose the person who produces the package.

PSEUDOINTERROGATIVE:

... keeps track of **when** you look at the status.

CONCRETE OBJECTIVE:

... keeps track of **the times** you look at the status.

PSEUDOINTERROGATIVE:

... **determines which** category describes ...

CONCRETE OBJECTIVE:

... **determines the category** that describes ...

PSEUDOINTERROGATIVE:

The question was raised as to **who** has the responsibility.

CONCRETE OBJECTIVE:

The question of **responsibility** was raised.
or better yet,
... raised the question of **responsibility**.

PSEUDOINTERROGATIVE:

... **tracking what** kind of defects occur at which stage ...

CONCRETE OBJECTIVE:

tracking the kind of defect that occurs at each stage ...

PSEUDOINTERROGATIVE:

This facility provides information **on where** to direct a complaint.

CONCRETE OBJECTIVE:

This facility supplies information **on forwarding** complaints.

PSEUDOINTERROGATIVE:

... pertaining to **why** a function does what it does.

CONCRETE OBJECTIVE:

... pertaining to the **explanation** of a function.

This is the age of information. A hallmark of good information is its ease of use. By ridding our written communication of pseudointerrogative objects, we can help clarify and lighten the texture of our text, producing prose that is delightfully direct and strikingly simple. That is, we stand to improve its usability. Together we can end the false "interrogation" of grammatical objects!

—C. E. Velte

Toronto, Canada



PCS Presents Specialty Courses

(continued from page 1)

"The most difficult part of our job," Nancy says, "is finding out who needs our courses. They're out there, all right, but we don't know who they are or where they are!"

Can you help?

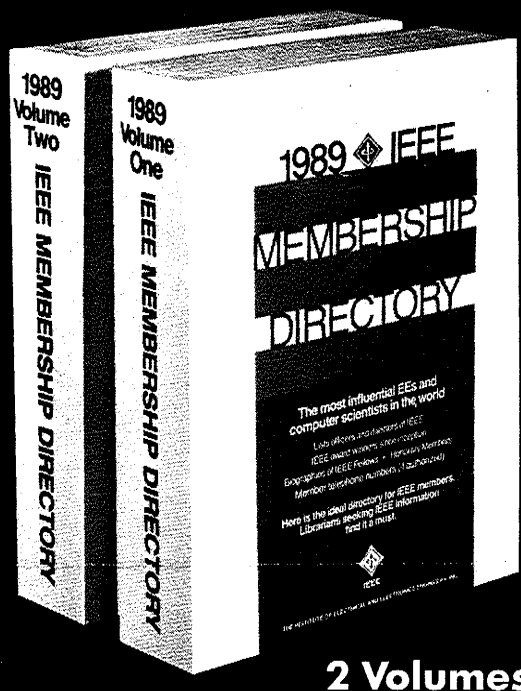
Please send the name, title, and address of a potential contact to either Nancy or Ron (or, better still, clip or copy the course description and hand-carry it in to a potential contact for them). Their addresses:

Nancy Corbin
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Federal Systems Division
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FAX: (204) 475-3092



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The 1989 IEEE Membership Directory provides quick access to name, current location and title of over 250,000 IEEE members and Affiliates (excluding students) in 137 countries. Includes telephone number when authorized.

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In addition to the roster, the Directory contains much information of use to IEEE members, such as: listings of IEEE past presidents, officers and directors...the purposes, organization and history of the IEEE...requirements for the attainment of various membership grades.

PUBLICATION DATE: Mid-April 1989**Place your order today to receive expedited delivery.**

Please send me _____ copy(ies) of the **1989 IEEE Membership Directory (JH8856-7)** to be published in mid-April. List price \$135.00; IEEE member \$54.00. Postage & handling charges: for orders totaling \$1.00 to \$50.00 add \$4.00; \$50.01 to \$75.00 add \$5.00; \$75.01 to \$100.00 add \$6.00; \$100.01 to \$200.00 add \$8.00; over \$200.00 add \$15.00.

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IEEE

CONSTITUTION and BYLAW AMENDMENTS

adopted by the Administrative Committee, July 14, 1989

EDITOR'S NOTE: Our Constitution and Bylaws stipulate that amendments be published in the Newsletter. Send comments to: Dr. Rudy Joenk, IBM Corporation, Dept. 419/021, 500 Columbus Ave., Thornwood, NY 10594.

CONSTITUTION

1. . . . that the Constitution be amended as follows (requires 30 days' notice and two-thirds approving vote, plus approval by the TAB and the IEEE Executive Committee and publication in the *Newsletter*):

[Underlining indicates text to be added; italics indicates text to be deleted.]

Current

II.1

Section 1. The field of interest of the Society includes the study, development, improvement, and promotion of effective techniques for preparing, organizing, processing, editing, collecting, conserving, disseminating any form of information by and to individuals and groups by any method of communication.

II.3

The Society's field of interest also includes the research and development of new techniques, the definition of professional standards, and the fostering of continuing education related to these media.

V.3

The AdCom annually elects one of its members as president and another as vice-president. For each position the term is one year. No member may serve as president while he is serving an overlapping term as president of another IEEE Society.

V.10

. . . Committee chairmen who are not elected members of the AdCom are ex-officio members of the AdCom.

V.11

. . . He represents the Society. . . .

Proposed

II.1

Section 1. The field of interest of the Society includes the study, development, improvement, and promotion of effective techniques for preparing, organizing, processing, editing, collecting, conserving, teaching, and disseminating any form of technical information by and to individuals and groups by any method of communication.

II.3

The Society's field of interest also includes the research and development of new techniques, the definition of professional standards, and the fostering of continuing education related to these activities *media*.

V.3

The AdCom annually elects one of its members as president and another as vice-president. For each position the term is one year. No member may serve as president or vice-president while he or she is serving an overlapping term as president or vice-president of another IEEE Society.

V.10

. . . Standing committee chairmen who are not elected members of the AdCom are ex-officio members of the AdCom.

V.11

. . . He or she represents the Society. . . .

Current

Proposed

VI.2

Within-term vacancies on the AdCom are filled by appointments for the unexpired terms. The appointees shall be nominated by the president and approved by a majority of the AdCom.

VI.2

Within-term vacancies on the AdCom are filled by appointments for the unexpired terms. The appointees shall be nominated by the president and approved by a majority of the AdCom. Such appointees have all the voting rights of elected members of the AdCom.

VII.4

Seven members of the AdCom attending a meeting constitute a quorum. All elected members have equal votes. Ex-officio members vote on all business of the Society except as defined in the Bylaws.

VII.4

Seven elected members of the AdCom attending a meeting constitute a quorum. Ex-officio members are not included in a quorum count but may vote on all business of the Society except as defined in the Bylaws. All elected members have equal votes.

VII.6

... When correspondence or telephone calls between two individuals are used, no decision can be binding except by unanimous vote of the entire AdCom, and each vote must be confirmed in writing.

VII.6

[Replace this with] ... Action based on communication between two individuals must be approved by two-thirds of the elected AdCom. The secretary will record the individual votes in the minutes of the next meeting. [This makes the section compatible with Bylaw 7.2.3.]

BYLAWS

2. ... that the Bylaws be amended as follows (requires 30 days' notice and two-thirds approving vote, plus approval by the TAB chairman and publication in the *Newsletter*):

[Underlining indicates text to be added; italics indicates text to be deleted.]

Current

Proposed

3.2.3

A Society Affiliate can be elected to serve on the Society's AdCom, hold appointive offices and positions in the Society, and vote in Society elections.

3.2.3

[Replace this with] A Society Affiliate can serve in appointive offices in the Society other than secretary, treasurer, or chairman of a standing committee.

3.2.4

A Society Affiliate cannot become the president of the Society or represent the Society on IEEE boards or committees.

3.2.4

A Society Affiliate cannot *become the president of the Society* serve in an elective office in the Society or vote for candidates for these offices or represent the Society on any IEEE board or committee.

3.4

... Honorary life members are exempt from payment of the annual fee.

3.4

[Replace this with] ... Society fees for IEEE Life Members shall be paid from the Society's treasury.

5.2

In addition to the 18 elected members-at-large, the AdCom may include the following ex-officio members: ...

5.2

In addition to the 18 elected members-at-large, the AdCom *includes* may include the following members: ...

Current

5.3

The following standing committees shall be appointed by the president with the advice and consent of the AdCom as soon as possible after each annual election:

- a. Awards
- b. Editorial Advisory
- c. Education
- d. Meetings
- e. Membership
- f. Nominating
- g. Planning
- h. Professional Activities
- i. Publicity
- j. Standard
- k. Student Activities

The chairmen of these committees hold office. . . .

5.3.1, 6, 8, 9, 10, 11

[Definitions of Awards, Nominating, Professional Activities, Publicity, Standards, and Student Activities Committees, respectively]

5.3.5

This [Membership] committee is also responsible for maintaining appropriate membership records, establishing contact with new members, and publishing membership information to support recruiting activities.

5.3.7

. . . IEEE Long-Range Planning Committee . . .

6.1

. . . Nominating Committee Chairman who, in turn, appoints the members of the committee.

6.4

If one nominee does not receive a majority of the votes on the first ballot, subsequent ballots. . . .

6.5

Unless disapproval of such elected members is received within 60 days of the issue of the Newsletter, the elections shall become final.

Proposed

5.3

The following standing committees shall be appointed by the president with the advice and consent of the AdCom as soon as possible after each annual election [five committees retained as standing committees because of their major and continuing importance to the Society]:

- a. Editorial Advisory
- b. Education
- c. Meetings
- d. Membership
- e. Planning

The chairmen of these committees shall be Members of the IEEE as well as of PCS. They hold office. . . .

5.3.1, 6, 8, 9, 10, 11

[Delete definitions but transfer them to the Job Descriptions guide and retain them for future use.]

5.3.5

This [Membership] committee is also responsible for maintaining appropriate membership records, initiating the upgrading of current members, establishing contact with new members, and publishing membership information to support recruiting activities.

5.3.7

. . . IEEE *Long-Range Strategic* Planning Committee . . .

6.1

. . . Nominating Committee Chairman who, in turn, appoints the at least two members to the committee.

6.4

If one nominee does not receive a majority of the votes on the first ballot, the nominee who received the fewest votes is eliminated, and subsequent ballots. . . .

6.5

Unless five percent of the Society's members disapprove in writing within 30 *disapproval of such elected members within 60* days of the issue of the Newsletter, the elections shall become final.

READY NOW FOR IN-HOUSE PRESENTATION

IEEE Professional Communication Society Course WR-1

WRITING TECHNICAL CORRESPONDENCE AND REPORTS

Course WR-1 is a two-day workshop that focuses on typical writing problems faced by technical people in business, government and industry. It offers ingenious techniques for streamlining the writing task, and provides frequent opportunities for practice.

KEY FEATURES

- Provides practical, easy-to-apply techniques for sharpening participants' writing skills.
- Tailored to the particular needs of each group, with group size limited to insure individual instructor attention.
- Provides a balanced mix of instruction, discussion, and practical writing, with the emphasis on writing practice.
- Courses are held on clients' premises, at clients' preferred times.
- Participants work from a specially written textbook and write exercises related to their technical or engineering orientation.
- Instructors are experts in technical writing with extensive first-hand experience of government, business, and industrial communication techniques.

LEARNING OBJECTIVES

By the end of the course participants will be able to:

- Start writing quickly,
- Organize information for optimum impact,
- Identify primary information and focus their readers' attention on it,
- Differentiate between essential information and irrelevant details,
- Write shorter, more effective letters and reports, and
- Identify and remove wordy expressions from their writing.

WHO SHOULD ATTEND

Engineers, scientists, technologists, and technical managers—anyone who writes detailed technical correspondence and reports.

*COURSE OUTLINE WR-1**Sharpening Writing Style*

Differentiating between "Tell" and "Sell" communications
 Identifying the target reader(s)
 Identifying the main message
 Placing the main message up front
 Choosing the right words

Organizing the Writing Task

Getting off to a fast start
 Homing in on the facts
 Arranging facts for maximum impact
 Building an outline
 Writing with pen and paper
 Writing at a computer terminal
 Reading objectively
 Editing one's own words

Writing Technical Correspondence

Achieving clarity, brevity, and sincerity
 Selecting an appropriate letter format
 Writing memorandums and electronic mail
 Writing to obtain action

Writing Short Informal Reports

Organizing and writing:
 Incident and field trip reports
 Progress and inspection reports
 Instructions and suggestions

Writing Longer Reports and Proposals

Organizing and writing:
 Investigation and evaluation reports
 Feasibility studies and proposals
 Analytical studies

COURSE DETAILS

- *Course Duration*—Two consecutive days
- *Course Location*—At client's facilities
- *Number of Participants*—16 (recommended); 20 (maximum)
- *Course Textbook*—Either "Technically-Write!" (Prentice-Hall) or "Writing Reports to Get Results" (IEEE Press); selection depends on course orientation and group make-up.
- *Course Videotapes*—Two videotapes are screened at appropriate moments during the course:
 - "Sharpening Your Business Writing Skills" (4 key techniques; 46 min.)
 - "Taking Part in Office Meetings" (Presenting a proposal; 24 min.)
- *Course Price*—The cost varies from \$3,000 to \$4,000, depending on location and number of participants (includes instruction, textbooks, evaluation of assignments, and instructor travel and accommodation).

WHO TO CONTACT

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**PLEASE CLIP AND SEND REGISTRATION FORM AND FEE(S) TO THE IPCC89 TREASURER
CONFERENCE REGISTRATION**

REGISTRATION FEES:

(CHECK ONE)

Member of IEEE/PCS Affiliate	\$300	_____	(current membership no.)
Student and Retiree (proof of status required)	\$200	_____	(includes meals and program)
Non-member	\$335	_____	(\$35 will be applied toward 1990 IEEE/PCS membership if requested)

OPTIONAL ITEMS:

Extra Luncheon	\$30	_____	(No.)
Extra Banquet	\$55	_____	(No.)
Extra Conference Record	\$20	_____	(No.)
New York Harbor Dinner Cruise	\$55	_____	(No.)

TOTAL AMOUNT ENCLOSED \$ _____

PLEASE MAKE CHECKS PAYABLE TO IPCC89
(a separate check may be submitted for optional items)

(PLEASE PRINT)

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Title: _____ Telephone: (w) _____ (h) _____

INTERNATIONAL PROFESSIONAL COMMUNICATION CONFERENCE

The Garden City Hotel

October 18-20, 1989

All participants and attendees must pay appropriate registration fee. Approximately \$175 of the fee is allocated to business meals, including three continental breakfasts, two luncheons, an awards banquet, and coffee breaks.

Send Registration Form and Fees to:

IPCC89 Treasurer
William P. Kehoe
JHU/APL, 6-373
Johns Hopkins Road
Laurel, MD 20707

For Hotel Reservations Contact:

The Garden City Hotel
Garden City, LI NY 11530
516-747-3000
1-800-547-0400
TELEX: 221-220

For Further Information Contact:

Mr. Richard M. Robinson
Grumman Corporation
MS C39-05
Bethpage, NY 11714
516-575-5472

Getting There

The four-star Garden City Hotel is centrally located on Long Island's Gold Coast, 20 minutes from LaGuardia and JFK airports and only 40 minutes from downtown Manhattan. Both airports are equally accessible, by cab or limousine. Or, take a train to New York's Penn Station and transfer to the Long Island Railroad, which stops at the hotel's front door.

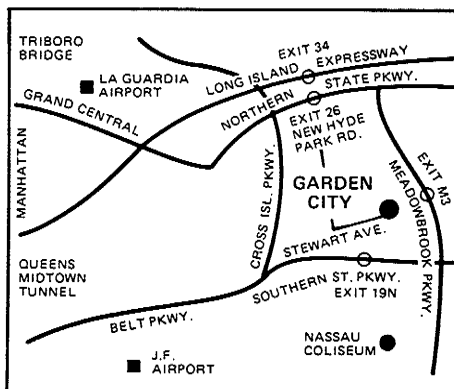
Getting Around

Rent a car to tour Long Island, or visit New York City's Broadway, Bronx Zoo, World Trade Center, Rockefeller Center, Fifth Avenue, Metropolitan Museum, and Statue of Liberty...

Getting into the New York Spirit

Our optional Wednesday tour is a dinner cruise on New York Harbor, departing from

the historic South Street Seaport/Wall Street area. Bus transportation and dinner cruise are included in the \$55 fee, as is the full flavor of the Big Apple.



Directions:

MANHATTAN PENN STATION – Take Long Island Rail Road, Hempstead Branch to Garden City Station. Hotel located directly across the street from station.

MANHATTAN MIDTOWN – Take the Queens-Midtown Tunnel to Long Island Expressway (Rt 495) to New Hyde Park Road South. Make right off ramp (Exit 34) to Stewart Ave (after RR crossing – 2nd light) – left on Stewart to hotel.

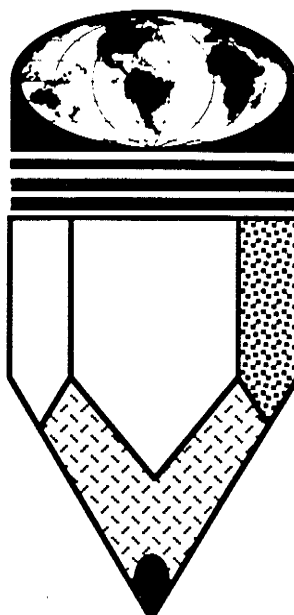
J.F. KENNEDY AIRPORT – Take Belt Parkway east to Southern State Parkway (Exit 19N). Go right on Peninsula Blvd. Go left on Franklin and left on 7th Street to hotel.

LA GUARDIA AIRPORT – Take Grand Central (Northern State Pkwy) to New Hyde Park Road South (Exit 26) to Stewart Ave (after RR crossing – 2nd light) – left on Stewart to hotel.

INTERNATIONAL PROFESSIONAL COMMUNICATION CONFERENCE

October 18-20 • Garden City Hotel, Garden City, NY

Sponsored by the
IEEE Professional Communication Society





COMMUNICATING TO T

The Program

Join your fellow professional communicators from around the world - Come early and attend the Tuesday evening workshop on Job Burnout conducted by Dr. Mike Cronin of Radford University.

Wednesday's keynoter is Weyman "Sandy" Jones, Grumman Corporation Vice President for Public Affairs.

The Thursday awards banquet speaker is Congressman/Engineer George Hohnsbeeckner, highlighted in *Spectrum*, November 1988.

Our Friday luncheon features Marguerite "Marge" D'Amico, AT&T Director of International Public Relations.

Browse through an exhibit area displaying the latest in automated publishing systems and communication technology. And, select from over 70 papers/panels/workshops on the following topics:

- ☐ Buying and Managing Communication Technologies
- ☐ Partnerships: University and Industry
- ☐ Networking: Pros and Cons
- ☐ Wide Area Networks
- ☐ Impact of Networks on Communication Patterns
- ☐ The Editing Process in a Desktop Environment
- ☐ Contractual Communication
- ☐ Marketing and Proposal Development
- ☐ Graphics for Multi-cultural Applications
- ☐ International Communications Systems
- ☐ Managing Communications
- ☐ Usability Testing and Communications Research
- ☐ On-line Data Base Systems
- ☐ Computer Bulletin Boards
- ☐ Sharing Information Internationally by Satellite
- ☐ Automated Proposal Preparation
- ☐ Video for Proposals, Reports, or Public Information
- ☐ Managing for Productory Communication
- ☐ Communicating in M
- ☐ Computer Aided Gra
- ☐ Handling Profession
- ☐ mation in Multi-nati
- ☐ Banks, Airlines
- ☐ Communicating Te
- ☐ Translation of Tec

The Place

IPCC89 has re at the Garden City day, October 17, 1 Friday, October 20 rate of \$135.00 si (A very limited nu available at the s come, first serve available for two after the confer To make re den City Hotel as part of IPCC the block of ro September 25 all conference ference hotel



THE WORLD

activity in the Contemporary Environment
Multi-cultural Markets
Physics
Social and Public Informational Environments—
Technology to the Public
Technical Information

reserved a block of rooms
Hotel for arrival on Tuesday, 1989 and departure on Tuesday, 1989 at the special daily single and \$150.00 double. A number of double rooms are available at a single room rate – first come, first served! The special rate is also available for reservations made 30 days before and two days before the event.

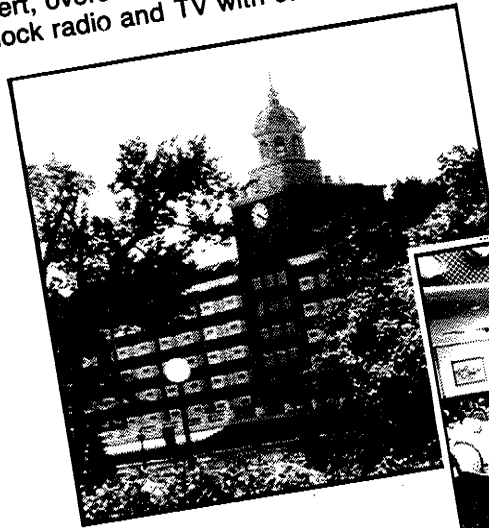
For reservations, contact the Garden City Hotel directly and identify yourself as a participant. Make reservations early; reservations will be held only until September 1, 1989. We recommend that all participants stay at the con-

Location

Elegant, world-class hotel nestled in luxury on Long Island's famed Gold Coast. Convenient to major international firms: Unisys, Grumman, Canon, Nikon, and Tambrands. Nearby beaches, 15 minutes. JFK and LaGuardia Airports, 20 minutes. Manhattan, 40 minutes via car or by LIRR across street.

Accommodations

280 exceptional guest rooms, including penthouse suites with terraces, overlook the graceful and splendid surroundings of The Garden City Hotel. All rooms have air-conditioning, two phones with message alert, oversized towels, turndown service, clock radio and TV with cable and HBO.



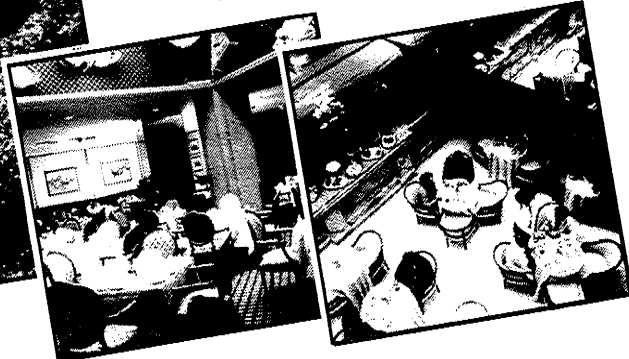
Twelve separate, airy meeting rooms ranging in capacity from 20 to 600. Larger spaces can be subdivided into smaller rooms as needed.

Services

Indoor pool, health club with Jacuzzi, sauna, and masseuse. Shopping arcade with barber shop/beauty salon, boutiques, gift shop, jewelry shop, travel agent. Concierge and room service available 24 hours a day. Full-time multilingual convention service staff. Complete range of teleconferencing and audiovisual services. Free parking facilities.

Dining

Exquisite, Northern Italian gourmet cuisine in Cote d'Or restaurant. Open for dinner only. The casual Polo Grill features breakfast, lunch, dinner and Sunday Brunch, open 7 days. Snacks, homemade pastries, desserts, and cordials served in the intimate Atrium Cafe. Dancing in Club G, contemporary night club. Entertainment nightly and during lunch in the Polo Lounge.



Tools of the Trade

Writing to Solve Problems

Part 2: Rethink "Persuasive Writing"



Cheryl Reimold is author of more than 100 articles and several books, including How To Write a Million-Dollar Memo and Being a Boss. Her firm, PERC Communications (6A Dickel Rd., Scarsdale, NY 10583, telephone 914-725-1024), offers businesses in-house workshops and courses in communication, writing, negotiation, and creative problem solving.

Many problems have grown out of misguided attempts at "persuasive writing," mainly because writers have confused it with "fudge-writing."

By fudge-writing I mean exaggerating the merits of an idea or event and then putting blinkers on the reader so that he sees only that distorted picture. You put blinkers on your reader by:

- Omitting information
- Implicitly decrying all other points of view
- Suggesting that doing what you ask will benefit the reader enormously (even if it won't).

You may be thinking, "Oh, sure, I know that kind of writing. It makes up most of my 'junk mail'—sales letters trying to persuade me that I need to invest in a vacation home in the swamps of Dade County or that I should be flattered by the chance to pay \$85 a year for an 'exclusive' credit card. I'm wise to that stuff. But I don't write it."

Well, think again. Almost all of us have written "That stuff" at one time or another, when we desperately wanted to make a certain impression or convince someone to do something for us. The technical memo that doesn't quite mention the fact that the project is a few days behind schedule. The letter requesting a paper for an upcoming conference that makes the conference sound a little more important and well-attended than it really is. The cover letter with a resume that makes the applicant's experience sound just a bit more relevant to the position than it really is.

Very few of us can say that we have never stretched a point to convince someone to do what we would like. But this so-called act of persuasion can lead to tremendous difficulties because it *hides problems* instead of solving them.

The report that skims over the few days' delay also skims over the reasons for the holdup and the new problems or schedule clashes that may grow out of it. These additional problems will not disappear just because we choose to ignore them.

The letter that slightly misrepresents the nature of the conference may lead to a serious problem with the person who agrees to give the paper. On arriving at the small, poorly attended meeting, this speaker may well end up resenting and mistrusting not only the letter-writer but also the organization he or she represents.

The cover letter that exaggerated the relevance of its writer's work experience may lead that person, once hired, to cover up his ignorance of certain crucial parts of the job and thereby cause problems and even danger.

Let's stop writing difficulties into our lives! Here are two ways to use writing to solve, not create problems:

1. *From now on, submit everything you write to a "problem check."* Search out problems that you have not mentioned and note them down for yourself. To do this, think back over the topic you're discussing, consider it step by step, and stop at the points you deliberately left out of your written discussion. Usually, these mark the areas where problems lurk. You may still decide not to mention them in your letter, memo, or report. But that doesn't mean *you* have to ignore them and avoid doing anything about them.
2. *Rethink persuasive writing.* Instead of glossing over a difficult fact, consider telling your reader both the really good news *and* the possible problems. No one expects a project to be totally problem-free—and no one really believes a report that suggests it to be so. If you begin your report by telling the reader the good things that have happened and then state clearly and concisely the problems that arose *and what you intend to do about them*, you'll write a much more believable, creditable, and truly persuasive report.

We have suggested to some companies that they include a "Challenges" section in each report. Challenges is a positive word for problems-to-be-solved. It implies that you are not afraid of mentioning or facing them and that you are preparing ways to meet

and overcome them. The companies that have tried this addition have found that it works extraordinarily well *if* everyone does it and does it honestly.

The concept of accepting problems as positive challenges to be met rather than proofs of failure to be hidden is new to some businesses. Those firms that have made this new way of thinking part of their policy have found that it inculcates constant quality control, keeps problems smaller and under control, and, of course, improves communication and morale.

How about your company—or your department?
Are you read for the Challenge?

—Cheryl Reimold



Some Do's and Don't for Travellers: Signs of Our Times

In a Tokyo hotel: Is forbidden to steal hotel towels please. If you are not person to do such thing is please not to read notis.

In a Bucharest hotel lobby: The lift is being fixed for the next day. During that time we regret that you will be unbearable.

In a Leipzig elevator: Do not enter the lift backwards, and only when lit up.

In a Belgrade hotel elevator: To move the cabin, push button for wishing floor. If the cabin should enter more persons, each one should press a number of wishing floor. Driving is then going alphabetically by national order.

In a Paris hotel elevator: Please leave your values at the front desk.

In a hotel in Athens: Visitors are expected to complain at the office between the hours of 9 and 11 A.M. daily.

In a Yugoslavian hotel: The flattening of underwear with pleasure is the job of the chambermaid.

In the lobby of a Moscow hotel across from a Russian Orthodox monastery: You are welcome to visit the cemetery where famous Russian and Soviet composers, artists, and writers are buried daily except Thursday.

In an Austrian hotel catering to skiers: Not to perambulate the corridors in the hours of repose in the boots of ascension.

On the menu of a Swiss restaurant: Our wines leave you nothing to hope for.

On the menu of a Polish hotel: Salad a firm's own make; limpid red beet soup with cheesy dumplings in the form of a finger; roasted duck let loose; beef rashers beaten up in the country people's fashion.

In a Hong Kong supermarket: For your convenience, we recommend courageous, efficient self-service.

Outside a Hong Kong tailor shop: Ladies may have a fit upstairs.

In a Bangkok dry cleaner's: Drop your trousers here for best results.

Outside a Paris dress shop: Dresses for street walking.



Five Job-Getting Skills

There are five skills that companies commonly look for in job candidates, notes Andrew Sherwood, chairman and chief executive officer of Goodrich & Sherwood Company, a human resources management consulting firm based in New York City. If you hone these skills throughout your career and emphasize them in interviews, you'll increase your hiring potential:

1. **Public Speaking**—The ability to communicate a message effectively in casual or pressure situations.
2. **Financial Management**—The ability to manage an operation budget successfully and cost-effectively.
3. **People Management**—The ability to manage people in a variety of situations.
4. **Training**—The ability to train and develop subordinates to ensure that the job gets done properly and that competent successors are ready to take over.
5. **Writing**—The ability to communicate clearly on paper.



Light Traffic

The practice of praying to patron saints is quite common; but I had not realized how widespread it was until the other day. On my way to work one morning, I saw people who missed trains and buses pleading for the intervention of St. Randed. Near the University Stadium, I heard joggers starting their run with a prayer to St. Amina. I got a call from my friend in the Computer Memory Industry, who was full of praise for St. Orage for making the last year profitable and thus memorable. An untenured Assistant Professor walked into my office and showed me his curriculum vitae which started off with a hymn dedicated to St. Ability. At lunch-time, the cafeteria was reverberating with toasts to St. Omach.

During the afternoon I attended an administrative committee meeting which started with a prayer to St. Reamline. On my way back to my office, I saw students and professors entering exam rooms with the names of St. Ruggle and St. Ymie respectively on their lips. A graduate student then came and complained that St. Ipend had not been kind to him lately. On the way back home at night I heard loud cheers to St. Ein emanating from beer taverns and saw some patrons reeling out of the taverns with prayers to St. Agger. The signs were unmistakable. A wind of religious fervor was blowing across the land. I felt that I had to salute all such saints; hence, this column.

There may be many professionals and groups who may not be aware of the names of the patron saints responsible for their welfare. In the interests of public service I give below the basic list:

St. Acks	<i>librarians and bookworms</i>
St. Age	<i>dramatists</i>
St. Ale	<i>comedians</i>
St. Amp	<i>philatelists</i>
St. Andby	<i>supply teachers</i>
St. Anza	<i>poets</i>
St. Ar	<i>aspiring thespians</i>
St. Ark	<i>nudists</i>
St. Ash & St. Ealth	<i>thieves</i>
St. Atic	<i>radio engineers</i>
St. Ationery	<i>paper pushers</i>
St. Atistic	<i>weather reporters, sports announcers</i>
St. Ereo	<i>audio engineers</i>
St. Erile	<i>hospital workers</i>
St. Ethoscope	<i>physicians</i>
St. Imulant	<i>night-shift workers</i>

St. Irrup	<i>cowboys (and those who simply horse around)</i>
St. Ocks	<i>investors</i>
St. Ork	<i>obstetricians</i>
St. Ory	<i>liars</i>
St. Radivarius	<i>violinists</i>
St. Rain	<i>athletes</i>
St. Rategy	<i>chess players</i>
St. Ress	<i>workaholics</i>
St. Rike	<i>unions</i>
St. Roke	<i>egoists</i>
St. Ructure	<i>civil engineers</i>
St. Rudel	<i>bakers</i>
St. Uffy	<i>pompous persons</i>
St. Upid	<i>dim-witted</i>
St. Upor	<i>alcoholics</i>

Cryoscholastics

In response to a call for innovative university-industry interfaces, the following anonymous proposal appeared in the University of Toronto *Bulletin* (February 4, 1985):

Cryoscholastics of Toronto, a firm specializing in the cryogenic storage of fresh graduates from doctoral programs at Ontario universities, has announced plans for a computer link-up with the U.S. Library of Congress. In the words of its president, "Frosty" Banks, it will allow Ph.D.s awaiting appointment to "stay abreast while staying cool."

While the freeze-drying process employed with the future professors makes the new information transmission service more readily adaptable to the quantifiable, "drier" subjects, Banks is optimistic that improvements to the hard-wired electronic mail service will make it as easy to absorb the horns of a moral dilemma as it now is to memorize a book of random numbers. Under the new arrangement, unemployed doctoral graduates would be allowed to register up to 10 buzz words with Cryoscholastics. Thus, a continuous flow of current secondary literature to storage facilities in their frozen brains would be assured.

Apart from a basic "suiting-up" fee, Cryoscholastics would operate on a contingent repayment plan. Clients not thawed and tapped as new academic blood would be subject to no charge. After 25 years, unrequisioned saturated brains would become the property of Cryoscholastics, which thereby hopes to become a repository of all human knowledge. This would be available, telepathetically and by more conventional means, to local libraries and private customers for a modest fee.

Codes

Reader "Les Riddle" (Linthicum, Maryland) has sent the following rules and regulations to be added to *A Menu of Codes* (October 1987):

- Barker code:** Canines must obey the same regulations as other patrons of this restaurant. We can't allow this fine establishment to go to the dogs.
- Gold code:** This establishment does not accept checks, credit cards, currency, IOUs, or promissory notes.
- Gray code:** Senior citizens are entitled to a ten percent discount in this establishment.
- PN code:** All patrons must act responsibly in the restrooms provided by this establishment.

Courses

J.D. Stringer (Seattle, Washington) writes:

With reference to your column *Name that Course!* (February 1988) I prefer the following "Nom de Plumbs":

Introductory Computer Engineering: "Basic Bytes" or "Base Bytes" or simply by its course no.: 2⁸

Genetic Engineering: "Gender Blender"; First course: "Genesis" or GEN 1; then Exodus, of course, as the last course.

—S. Pasupathy

Reprinted from the IEEE Communications Magazine, May 1989



Sending Savvy Signals

The 1988 presidential campaign was a triumph for George Bush; it was also a great feat for communications training. With the help of political media advisor and image-maker Roger Ailes, people's perception of President Bush changed from "wimpy" follower to forceful leader.

According to Ronnie Hammer and Toni Guss, codirectors of Power Presentations, in Morristown, New Jersey, many of us undermine our own authority and cause people to question our credibility by using wimpy expressions or sounding nervous or unsure.

Here are some ways that you can sabotage your verbal message; some of them may sound familiar:

- **Discounting:** "Maybe this isn't the time to bring this up, but . . .", "This might sound stupid, but . . ." or "Maybe you've already thought of this, but . . .". When you use one of these expressions, you discount your own authority and give your listener permission to ignore what you're about to say.

- **Diluting the impact:** When you begin a sentence with "I think . . ." "I feel . . ." or "I believe . . .", you're turning a fact into an opinion. Opinions don't have the clout of facts, so don't communicate lack of expertise by saying, "I think these figures will show that my proposal will save the company \$100,000 in mailing costs." Instead, assert: "These figures will prove that my proposal will save the company \$100,000. . . ."

- **Apologizing:** "I know I haven't been here long but I have an idea that will increase productivity." When you begin with an apology, you convey lack of confidence, uncertainty about what you're saying and lack of conviction.

- **Making self-deprecating remarks:** How many times have you said, "I just did a stupid thing!" or "I can't believe what a dumb mistake I just made!" If you broadcast your mistakes, people may start believing that you are, indeed, incompetent.

- **Laughing inappropriately:** Laughter might be the best medicine, but it can also be a dead giveaway that you're nervous or insecure. So don't let the joke be on you; save laughter as a response to humor—not anxiety.

- **Allowing your voice to speak of insecurity:** If your voice rises at the end of a question, you'll sound as if you doubt your own words or are unsure of yourself. To sound more authoritative, lower the pitch of your voice during the last two or three words of a sentence. (Try it: Listen to yourself as you ask, "Who would like to serve on my committee?")

You've worked hard to get ahead. Make sure you sound as professional—and as powerful—as you look. Don't send out signals that raise doubts about your competence. Do what President Bush did: Learn to project a strong, confident image.

—*Reprinted from The Executive Female, May/June 1989*



Garden City Hotel

Garden City, Long Island, New York 11530

(516) 747-3000

(800) 547-0400

In order to make reservations for IPCC '89, please fill in the following, and mail directly to the Garden City Hotel at the above address.

Please make reservations for _____ persons.

Name(s): _____

Company: _____

Address: _____

Telephone: () _____

Arrival Date: _____ Time: _____

Departure Date: _____ Time: _____

Special Room Rates: Single-\$135, Double-\$150.

Same rate will apply for one day before and one day after IPCC '89.

RESERVATIONS MUST BE MADE BY SEPTEMBER 25, 1989.

All reservations held until 5:00 p.m. on the day of arrival unless guaranteed by a credit card. Please call the Reservations Department to guarantee your room: outside New York—800-547-0400; in New York state—516-747-3000.

Careers Conference

The sixth biennial IEEE-USA Careers Conference has been scheduled for November 1-3, 1989 at the Tradewinds Hotel in St. Petersburg, Florida. Sponsored by the IEEE-USA Career Maintenance and Development Committee, this year's Conference will address "Engineers and Engineering Managers: Career Challenges for the 1990s."

If you register before September 5, 1989, the cost for the two and a half-day event is \$175 (member) and \$250 (nonmember). After September 5, the cost will be \$225 (member) and \$300 (nonmember). The cost includes a reception, breakfasts, lunches, breaks and a Conference Record, which will be available at the Conference.

For more information or to register, please call the IEEE-USA Office in Washington, D.C.



Getting Your Message Across

When I graduated (1970), I might have said calculus and computer programming were the most important courses I took in school. Today, I believe the laboratories and English courses were the most important. Laboratory courses taught me how to organize my work and how to work with people. English taught me how to communicate with people. Today, I very seldom use calculus and I have all the computer programmers I need at my beck and call. This is not to imply that my technical knowledge is no longer important. However, I am continuously writing memos and reports to my staff and project teams, and I am always talking to people, speaking with colleagues and vendors on the phone, and attending meetings.

Let me elaborate on this point with a quotation from Benjamin Lamme, American engineer and inventor. He used to have a sign hanging in his office that read:

*Promotion stops due to personal qualities
long before it stops due to technical ability.*

Personal qualities like motivation, leadership, integrity, and professionalism are vital. But good

communication skills can also be interpreted as personal qualities. In fact, they underlie all the others.

Reason #1:

People judge you by what you say and write.

In your professional years, you may not often have the opportunity to meet with the upper management of your organization, especially if you work in a large corporation. The only information upper management will have to formulate an opinion of you (besides what your immediate boss tells them) is the written quality of your reports—and what tumbles out of your mouth on the few occasions you do see them. Through these thin channels, your career may flow; so take them seriously.

Reason #2:

Engineers do not work in a vacuum.

Throughout your career, you will be working with other engineers and colleagues. It will not always be necessary for you to do the actual engineering work, but it is necessary for you to tell others how it should be done . . . or explain to the vice president of your company why it should be done. If your communication skills are poor, what will you do when it becomes necessary to: make a presentation to management to get funds for a new project; present a paper at a technical conference; represent the company at a meeting with a client or other companies; or write a complex technical manual for operating a piece of safety equipment? People need to be able to understand your information. Good ideas poorly presented are worthless.

Reason #3:

Engineers are visible in the public's eye.

Today's engineer is more visible and accountable in the public forum for new technology than the engineer of 20 years ago. Most current limits to technological development manifest themselves as social, institutional, and political roadblocks, not to mention the multitude of state and federal regulations concerning safety and environmental impacts. Engineers must speak out in the public forum in an articulate and credible way. They must understand the social impacts of technology. In many situations, the engineer can "teach" society about technology—a very important and new role for the modern engineer. Communicating in the public forum is vastly different than communicating with one's peers. Today's engineer must be savvy in the techniques and styles of public communication.

Reason #4*Engineers are managers and leaders.*

Modern management theory now ranks leadership skills on an equal basis with the traditional management skills. Being a good engineer means being a "complete manager"—manager plus leader. Leadership is more of an art than a science of management. A successful leader must be sensitive to the communication signals he or she may be receiving from subordinates and peers. Non-verbal communications can be as loud as a shout and just as startling if one is not prepared for it. It takes skill and practice to be a leader, but most of all it takes communication.

I should like to conclude on a somewhat inspirational note.

The Engineer:

He is the Master of the Laws of Nature. On a sound foundation of mathematics, science, and economics, he bends the materials and forces of nature to his plan and rears the structure of civilization. He is the pathfinder of civilization. He breaks down barriers, bridges, chasms, establishes communication, and straightens the way for commerce and human progress...

This quotation was composed in 1939 by Dr. D. B. Steinman, a noted American bridge builder. Can you imagine trying to live up to the standard expressed in Mr. Steinman's quote without good communication skills? I cannot... and I do not think you can either.

—Harry Roman

Reprinted from IEEE Potentials, May 1989

**Three Cheers for Engineers**

There's science. Then there's engineering. There's a relationship—and a difference. But will the general public ever discern the difference?

President Bush's Chief of Staff John Sununu did his bit to undo the confusion when he was recently interviewed by television political reporter and host of "One on One," John McLaughlin.* Sununu—MIT-educated engineer, company founder, and engineering

professor—was twice addressed as a "scientist" by interviewer McLaughlin. On the first occasion, McLaughlin asked, "As a scientist, are you saying [SID] is technically feasible?" Sununu responded, "I'm an engineer, and I feel it's technically feasible."

On another occasion, McLaughlin began a question "Being a scientist, is the no...?" Sununu interrupted: "An engineer, John, an engineer." Isn't engineering a science, asked McLaughlin. "No. It's an engineering profession. There's a difference. We make things work," Sununu replied.

At the show's end, when McLaughlin pressed Sununu on his ambitions beyond being the chief of staff, Sununu replied, with some pride, we thought, "I'm going to die an old engineer, not an old politician."

Credit must also go to Edward B. Fiske, education columnist for *The New York Times*, who on March 29 wrote a column urging a place in the nonengineering college curriculum for the study of technology. In it he said: "The scientist seeks to understand the world and operates against an absolute standard. His findings either describe nature accurately or they do not. By contrast, the engineer is problem-oriented. He seeks not to describe the world but to change it... The engineer also lives in the world where science and values meet."

Finally, while we're on the subject of improving the public understanding of engineering, we must laud Siemens for its current series of television commercials in which it calls itself "a leader in high technology electronics and electrical engineering." Have you ever before seen a company use the words "electrical engineering" in a message directed to the general public?

Hurrah for Sununu, Fiske, and Siemens!

*The "One on One" interview was broadcast on the weekend of January 21-22, 1989.

—Donald Christiansen

Reprinted from the IEEE Spectrum, May 1989



40th IEEE

VEHICULAR TECHNOLOGY CONFERENCE

ON THE MOVE in the '90s

Crowne Plaza-Holiday Inn

May 7 - 9, 1990

Orlando, Florida

CALL FOR PAPERS*

You are invited to submit a paper for presentation at the 1990 VT Conference.
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Dispatch systems
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Satellite technology
Voice synthesis/recognition
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Voice coding
Antenna systems
Public safety
Data transmission
RFI reduction
Components
Computer-aided design

* Authors of accepted papers agree to present their papers at the 1990 conference.

Send your summary to IEEE VTC '90, Papers Committee, P.O. Box 1317, Winter Park, Florida, 32790, USA

AUTHOR'S SCHEDULE:

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