CE 341: CIVIL ENGINEERING COMMUNICATION SKILLS

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Indian Institute of Technology Kanpur

What is Technical Communication?

Communication that conveys complex information in an easy-to-understand manner, often to inexperienced/unexposed users

Topics may be something like..

- Giving instruction for a specific task
- Presenting research results
- Giving instruction to operate a machine

Why Should I Care?

Technical communication skills can be used in a variety of fields

- Core Engineering
- Education
- Marketing
- Business Management
- Administration

Technical communication skills

- **Writing** (clear and concise)
- **self-communication**:

  analysis, planning, time management, project management, task prioritization, anticipation of potential obstacles

- **research**:

  reading and listening for useful pearls amid engineering specifications and project meetings

- **interpersonal communication**:

  conveying a professional's ability to work independently and as a part of a team; gentle assertiveness, tact, flexibility (willingness to adapt to rapidly changing circumstances); ability to mentor and be mentored

  http://www.wordesign.com/resume/what_is_technical_communication.htm

Be a great listener

❖Your ability to listen attentively and patiently is key to having good communication skills

❖Though it is fine to communicate that you are able to understand, say with a simple nod

At times you may not be sure that you have understood what was said

At such a time you can state what you have understood and request the speaker to confirm

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Check your facts

o   When you are using verifiable facts in your communication take care to double check them

o   This will require some extra effort but it is well worth it

o   Getting the facts wrong will lead to loss of credibility

o   And then you have to wait till you can earn it back

o   And chances are, once in a while, you may have got the facts wrong

o   At such a time you will be happy you made it a habit to check your facts

Communicating under varying conditions- Which method to use?

event	Communication Style	
	Written	Oral
Conference presentation	Slide Presentation Poster	Oral delivery of content Answering viewer questions
Networking at a Conference	Sharing notes, paper discussion	Exchange of ideas, General, technical discussion
Class presentation	Report submission	Ask/ Answer a question Slide presentation Discuss with TA, Instructor
Job interview	Cover letter, CV, Statement of purpose etc. **Other** – email, SMS, telephonic	Introduce yourself, Face the interview panel Answer questions

Mode of communication varies with the nature and type of event!

Major Branches of CE

1. Structural Engineering

2. Geotechnical Engineering

3. Transportation Engineering

4. Environmental Engineering

5. Hydraulics & water resources Engineering

6. Geoinformatics

Technical terms commonly used in CE

- Confined
- Compression
- Tension
- Stress
- Strain
- Excavation
- Consolidation
- Sensitivity
- Arching
- Back Pressure
- Porous
- Resistance
- Load

- Aerosol
- Climate Change
- Exhaust Fumes
- Newtonian Fluid
- Liquefaction
- Flocculent
- Dispersed
- Flexure
- Bending
- Torsion
- Rocking

Search for technical terms

- *Terms to look for : glossary, structural technical terms*

- *Websites to look for: related govt. departments*

- *Tech terms computer dictionary: www.**techterms**.com*

Communicating Online
What should a professional email address look like?

- **Pick an address that you can stick with** - your current copy of your resume may last a lot longer than you think. The email address is an ideal way to contact someone about a job, so make sure you'll be regularly findable at that location Things to avoid here: a friend's server, domains you think you'll leave within 3 years, work addresses that will go away when you leave your current position.

- **Set up your account for frequent checking** - many fields and recruiters expect a turn around time in hours to days, not weeks. Don't set up an account that you aren't prepared to check regularly.

- **Avoid references to race, gender, religion, or particularly wild things in your username** - raju.kumar.programmer479 is better than wildandcrazysaturdaynightspecial - no matter what you read into that… it's just not professional.

- **Avoid very long, typo-prone cases** - Realize that in some cases you'll have to hand write the email address or that it may end up being hand-typed by a reader - a few numbers are not a big deal - raju.kumar.394857 is fine. But something with a very long string of digits, or cases of highly typo prone usernames are something to avoid (Il|1i - are easily confusable with each other - particularly in some styles of hand writing, as are oO0 - easier to figure out from context - if the context is clear).

- **Do connect it with anything professionally related to you, don't connect it to anything that makes you look unprofessional**

How to write a professional email?

Begin with a greeting

Thank the recipient (if you are replying to a response you received)

State your purpose

Closing remarks

Before you end your email, it's polite to thank your reader one more time as well as add some courteous closing remarks. You might start with "*Thank you for your patience and cooperation.*" or "*Thank you for your consideration.*" and then follow up with, "*If you have any questions or concerns, don't hesitate to let me know.*" and "*I look forward to hearing from you.*"

End with a closing

The last step is to include an appropriate closing with your name. "*Best regards,*" "*Sincerely,*" and "*Thank you,*" are all professional. It's a good idea to avoid closings such as **"Best wishes,"** or **"Cheers,"** as these are best used in casual, personal emails.

Finally, before you hit the send button, review and spell check your email one more time to make sure it's truly perfect!

Some more tips..

✓ Always fill in the subject line with a topic that means something to your reader. Not "Decals" or "Important!" but "Deadline for lab report submission" or "Meeting at CCD at 5 pm".

✓ Put your main point in the opening sentence. Most readers won't stick around for a surprise ending.

✓ Don't use ALL CAPITALS (no shouting!), or all lower-case letters either (unless you're the poet).

✓ As a general rule, PLZ avoid text speak (abbreviations and acronyms): *you* may be ROFLOL (rolling on the floor laughing out loud), but your reader may be left wondering WUWT (what's up with that).

✓ Be brief *and* polite. If your message runs longer than two or three short paragraphs, consider (a) reducing the message, or (b) providing an attachment.

✓ Remember to say "please" and "thank you."

✓ Add a signature block with appropriate contact information (in most cases, your name, business address, and phone number, along with a legal disclaimer if required by your company). Do you *need* to clutter the signature block with a clever quotation and artwork? Probably not.

✓ Edit and proofread before hitting "send." You may think you're too busy to sweat the small stuff, but unfortunately your reader may think you're too careless.

✓ Finally, reply promptly to serious messages. If you need more than 24 hours to collect information or make a decision, send a brief response explaining the delay.

Avoid spelling mistakes

- You should also spell-check your mails to avoid sending obvious misspellings and typos.

- Since email is a very fast means of communication, errors can creep in easily.

- A simple spell-check will solve that problem for most mistakes. If it is an important mail you should carefully read through it before sending it as well.

- You should also avoid using short forms in an email that you use in an SMS. Unless the mail is being sent to a person, who you know will be fine with the short forms.

Use proper formatting

You should capitalize words just as you would if you were writing a letter.

Using all lowercase (small) letters gives a sense of informality and even laziness.

Do not use capital letters unless for effect, people will feel you are shouting out your message.

Use bold case only where you really emphasize something.

Avoid using different fonts and colours of text and background unless it is a fun communication with a friend.

Be emotional when you need to but with care

Class Activity - 2

Group Discussion/ Debate

Topic:

Best career option of a CE graduate: core jobs in corporate sector, non-core jobs, govt jobs or academia?