



# TRAINING & MENTORING

## *The Good, The Bad and The Ugly*

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## WHAT IS THE STATE of TRAINING & MENTORING?

**GOOD? BAD? UGLY?**

**COMPLICATED!!!**

But we're Engineers so we can solve this.

**WAIT!** This is a people problem and  
Engineers don't solve people  
problems...that's HR!



## School – Yes it starts here

### Grade 9

1. Most students have little or no idea what engineering is.
2. Think it involves only mining and working in 'dirty' environments.
3. 'Poor' Maths and Science teachers (mentors) also steer students away from choosing these subjects so they tend to choose subjects that are not aligned to engineering.

**\* Need to be made aware of the importance of engineers in society.**

### Grade 12

1. Only 2-3% actually choose engineering as a 1<sup>st</sup> study choice. **PASSION!**
2. Again little or no credible knowledge of how important engineers(ing) is to society.
3. Need to attract more of the best students to engineering. Bulk of the students take engineering because of bursaries or rejection of their 1<sup>st</sup> choice

**\* Engineering needs to be marketed as a glamorous, important, value adding, 'sexy', career.**



## Universities

1. The relevance of 15% to 20% of course content is questionable.
  2. Students given extensive theoretical knowledge with very weak / poor practical knowledge and applicability. Engineering is applied sciences!!!
  3. Basic computer skills are a problem.
  4. New generation use short text (making reports / emails very difficult to read) and are not avid readers.
  5. Students qualify but are not equipped to hit the ground running.
- **Imagine how better equipped students would be if retired / practicing engineers gave guest lectures on 'what the reality' is in the engineering industry!**
  - **Offered vac works to students even just to shadow you.**



## EIT Years – Mentors

1. Not enough mentors avail themselves for mentoring. Voluntary with SAIEE. **\*Consider making it compulsory for Senior members upwards**
2. Mentors should also receive basic training on how to mentor
  - Giving positive, constructive feedback
  - Allowing mistakes at the cost of the project
  - SAIEE Guidelines can't get to the human aspect of mentoring!
3. What should the mentees be doing as part of their training?
  - Only discover shortcomings when applying for PR Eng etc. Is there some way for Mentors to check if they are on the right path?



## EIT Years – Mentees

- A bad mentor can seriously damage your passion for this career!!!
- Many mentees see it as the company's responsibility to train them. Entitlement!
- Attitude to continuous learning is waning yet the internet is full of knowledge that is freely available.
- **Engineering is a career**, not a job. Invest in your career. If you want fame and fortune, go become a rock star or accountant.



## The way forward!

- The **hope** of the industry lies in that **2% of students that choose engineering** because of a **PASSION**. We have to increase this number.
- Our industry has numerous **young, energetic engineers** that just need a chance. **Just give them a chance**. You WILL be pleasantly surprised that they not there to take your job but can actually make it a lot better.
- **Give Back! Mentor**. Be it donating a few hours at a local school to help improve Maths and Science, aiding university students to get a better handle on reality versus theory (vac work) or by simply **inspiring** and **imparting your knowledge** to the young engineer that just joined the company.



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**THANK YOU**