

# Random Thoughts . . .

## ENGINEERING EDUCATION VERSES

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### **LIMIT CYCLE**

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*It must be a canon of natural law  
or a reflex reaction like jerking of knees,  
That whenever a company's profits are down  
They proclaim an across-the-board hiring freeze.*

*Seniors looking for work find the door has been  
barred.  
The red carpets that last year were there in full  
view  
Have been rolled up and mothballed and stored  
out of sight,  
And the letters all read, "Don't call us, we'll  
call you."*

*For the next several years on each campus you'll  
find  
Would-be engineers singing their frustrated blues,  
And the word gets to seniors in high school that if  
You select engineering you'll pay some high dues.*

*Now these kids are no dummies, they soon get  
the drift  
And to business and law school they roll in a wave.  
Engineering enrollments go down like a stone  
And the deans struggle vainly their budgets to save.*

*It's a national crisis! Blue ribbon commissions  
Spend years and big bucks in a terrible fright,  
And proclaim that the old engineering profession  
Is sick unto dying, with no hope in sight.*

*Then of course there occurs a dramatic reversal  
That cuts short the agonized moaning and tears,  
For it seems that the companies had a good quarter  
And all of a sudden they need engineers!*

*The call soon goes out, all the freezes are lifted,  
Red carpets are hauled out and vacuumed with care,  
But recruiters soon find to their shock and surprise  
That the students they're trying to get aren't there.*

*Now the circus begins, it's the law of the jungle,  
If your pulse can be measured they want you  
right then.*

*Up go salaries, perks, and enrollments once more  
Till the whole silly cycle starts over again.*

*So what can we learn from this sad sordid story?  
The moral in just a few words I'll disclose:  
If our industry wants to stay healthy it might think  
Of lifting its gaze past the end of its nose.*

### **WANNA MAKE ABET?**

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*Who cares if their coming inspection  
Puts our jobs and prestige on the line?  
Since our courses are called engineering,  
What we teach has to count as design.*

## OH NO, IT'S THE E WORD!

*Thermo mavens rant about it.  
Gibbs and Sandler and Van Ness  
Give you formulas and prose  
About this thing that's known as S.*

*It increases with disorder,  
It's a property of state,  
It is zero for some crystals,  
It's the universe's fate.*

*It can be  $dq$ ,  $dU$   
and sometimes  $dH$  over  $T$ ,  
It's a measure of extent of  
Irreversibility.*

*It accounts for work that's lost  
In engines, blenders, pipes and flues,*

*Due to friction or to mixing.  
It's a game we always lose.*

*It's the reason we succumb  
To Deaths inexorable crunch,  
It equals  $k \ln \omega$ ,  
It is why there's no free lunch.*

*You can look it up in tables,  
Find it on a Mollier graph,  
But can they tell you what the hell it really is?  
Don't make me laugh!*

*There must be some way to explain  
in terms we all could easily understand,  
If not perhaps we should simply say it's one of  
The things that cannot be put into words...*

## TEACHER TRAINING WORKSHOP (SHORT FORM)<sup>1</sup>

*If you're anxious for to shine in the academic line  
As a man<sup>2</sup> of wisdom rare,  
You must cultivate the Dean and bring in lots  
of green  
And publish everywhere.  
You must go to learned meetings and exchange  
flamboyant greetings  
With the heroes in your field.  
Your rise will be dramatic and your peer  
reviews ecstatic  
And your reputation sealed.*

*And everyone will say,  
As the plaudits come your way,  
If this young man got a PYI  
Not to mention an ERC,  
Why, what a very paragon of scholarship  
This bright young man must be.*

*Be nimble on your feet too when a VIP you meet  
who  
In your field enjoys respect.  
Though you think that in his work he is a  
thoroughgoing turkey  
You must smile and genuflect.  
For some day he'll have a vote on a proposal that  
you float,  
As toward major grants you steer,  
And you wouldn't want him to cut you down in*

*his review,  
Like you did to him last year.*

*And everyone will say,  
As you wend your upward way,  
If this young man has friends in court  
At every funding agency,  
Why, what a stunning academic superstar  
This superstar must be.*

*As your star goes on ascendin' you must guard  
against a tendency  
To ease up on the pace.  
Work at night and on the weekend  
Lest in time you face a bleak end  
In the crucial tenure chase.  
Teach your class, serve on committees, go give  
talks in far-off cities,  
Put equipment out on bids,  
And maybe every week or two a reasonable thing  
to do  
Is visit with your wife and kids.*

*And everyone will say,  
As you turn prematurely gray,  
If this young man works a hundred-hour week  
Which is far too much for me,  
Why, we had better find him a Distinguished Chair  
So he doesn't jump to M.I.T.*

<sup>1</sup> For those who lack the Patience for the long version. (Apologies to W.S. Gilbert.)

<sup>2</sup> Or woman.