In the past, I have been privileged to have given speeches at Graduations and prize-giving ceremonies – and on various other occasions.

And I have personally lived through listening to many graduation speeches.

But this afternoon I feel deeply privileged, and deeply humbled. Because this is a Wits graduation.

I must start with a little calibration some – firstly, what I am going to say is really targeted at this afternoons’ graduates and diplomats – but everyone else is welcome to listen too!

Secondly, I speak as a South African – and therefore my comments are contextualised as such - but much of what I will say can, of course, be considered in the context of any country. And I am deeply aware that we have many graduates from other countries with us. And that makes us proud as a university.

So this afternoon I stand here in front of all of you – to be judged I guess, as a member of staff, as a researcher and educator – in fact, as a professor. One of that strange species that finds joy and fulfilment in learning all the time, and watching others do the same.

My colleagues refer to this attribute as a gene defect – well, it’s a defect I am glad I have. And I suspect some of you do too. If you have it, and you have not already considered academia as a career – it is never too late for that!

I know that I am speaking to some of the finest minds on this planet – the minds that will have to take us to the next level – and, as I will suggest, not a moment too soon.

Thinking back on the graduation speeches I have listened to, I must admit to not really being able to recall much of what was said. I guess I remember one or two key thoughts – and these have never left me.

I do hope that perhaps one or two thoughts of what I share with you today may have meaning for you, and perhaps stay with you.

I have just three very simple points for you to ponder:

1. This country is in trouble – and it needs you.
2. Let’s think about reintroducing national service – not the kind that is enforced – but the kind built on a deep sense of care for our country.
3. And, obviously, I want to tell you that if you stop learning, you die (and vice versa)!
Those of you who know me know that I am a positive person – I am also a happy person. I am blessed with a wonderful family, remarkable colleagues, I feel truly privileged to work with the students that I have – we have a young vice chancellor – and, here we are, in South Africa – in what is, without doubt, the most exciting part of the world.

Before I consider those three simple points, I feel no fear of contradiction when I say that this University attracts and develops a very special kind of person – a person who is critical yet faithful – able to identify openly failings yet nevertheless remain loyal.

People who can argue without losing respect for each other.

I would suggest that this is a University that produces the brave. People with courage. People who are able to make a difference – even when that action itself seems frightening.

This is not a university that has endeared itself to authority – neither past nor present. Because this is a university that’s role in society is to challenge – to look for a better way. By having the courage to suggest that by thinking, by debating, by arguing, by challenging, by interacting together, and with many folk from other countries - we will, indeed, find a better way.

It is in the very fabric of human nature to try to satisfy curiosity, trying to understand, and, I would argue, looking forward to applying that to the very best of your ability for the betterment of human kind.

POINT NUMBER 1

My first real observation this afternoon, the first thing I want you to remember, is this is a country in trouble – and I am not referring to recent sporting scores.

It is a country in need of leadership. Do not misunderstand me – I am not implying the kind of leadership that governments offer, or not, as the case may be – I am thinking of real lasting dependable leadership - the kind of leadership that people like you can offer.

The kind of leadership that says – I give a damn, and I will make a difference.

I will criticise, but only because I do care and will help.

This is a nation with deep, wicked, challenges.

I think that, in many respects, we may have lost sight of what it is that we set out to achieve. Perhaps it was the excitement of our miraculous re-birth, the euphoria brought about by the establishment of democracy, the assumption that everything good would flow from that alone, or perhaps it was the eroding of our collective humility.
So although we have a clear vision, there is the lingering sense that the vision may not, in fact, be realisable. You see, change can only ever really take place if people make it happen.

Even as engineers, we know that most large project failures can be attributed not to technical issues – but to people issues, failure to understand that people are the agents of that change, and all the implications associated with that.

We have infrastructure that is creaking to maintain its serviceability – but let’s be honest - in some cases we are victims of our own success; in others, admittedly, of poor planning and execution of some of critical elements of this nation’s fundamental building blocks.

There is no doubt that the path to achieving our vision must be paved with an excellent education system, absolute accountability and a policy environment that will ensure success. But, it also needs people willing and able to make a difference.

Now, with the possible exception of one of my PhD students, you are probably all too young to vividly recall some of the really wicked problems that we have faced as a nation – challenges that cost students and staff of this university – and many other people – their lives and their freedom.

So let us not lose our perspective about what has in fact been achieved – but equally, let us not imagine that these challenges, if not addressed, could well see us slump back into those bad old ways.

In essence, whatever the reasons, we cannot continue as we have been doing up to now.

And that is your challenge.

You are our future leaders.

So the first point to ponder – is that this wonderful nurturing country, is in trouble – it needs you – it needs your intellect, it needs your leadership.

POINT NUMBER 2

Now, my second point relates to this thing called national service. But please do not panic – I am not suggesting an enforced call-up.

I am speaking of a sense of caring. An intrinsic attribute, which, I hope and suspect, you all feel.

Our country needs your wisdom, your courage, and it needs you to commit to put back into its soil some of what you have gained from it.

My special appeal to you all – my challenge – is to recognise this as the most remarkable country on earth. Be proud of it; love it; and put back into it – but do not fear to criticise it.
Only a fool fears criticism.

But, every day, if you think of a criticism, also ask yourself and your colleagues, what it is that you can do to make a tangible difference.

You are all equipped to be able to do that.

Let me try to explain what I mean.

First of all, consider for a moment that you have all been fortunate enough to get a world class education. Not everybody gets that.

Secondly, you are all highly qualified and competent – at least from the moment that the chancellor taps you on the head!

But, when I say competent – I mean something quite specific: Competence is achieved by three things: knowledge, skills and your attitude.

So this second point, about caring enough to want to put back in a tangible way, is really a challenge to start a dialog about broadening your attitude – and therefore, I would suggest, about actually strengthening your competence – and by extension, what we are able to offer to our country.

For instance consider for a moment our school education system. I won’t bore you with stats and published informed comment of the crisis we face, of the massive challenge we face when we consider that engineers who would for the first time register to practice as professionals in 2030, are, in fact, in grade two right now!

They are no more to be found – they are IN our school system. The same applies to medical doctors and various other professionals also. Targets for as far away as 2030, are actually targets for today.

So when I look around at where we are and where we need to be, I am overwhelmingly convinced that if we do not all make it our business to help, somehow, starting today, we will not achieve our objectives.

My challenge to all of you, therefore, is do you have that sense of caring? Could you, or your own company, your employer, find a tangible way of, for instance, assisting in maths and science education? Would you do that?

So, the second point to ponder, is that attitude is a critical component of competence – and that our attitude towards our own environment must surely encompass a sense of wanting to put back – recognising that if we do not all stand up to help, our vision becomes merely an hallucination.

POINT NUMBER 3

Finally, you must never stop learning.
You must make it one of your life’s objectives to look for more knowledge. Knowledge, as they say, is power.

Your qualification to be conferred on you tonight is, in fact, just a licence to continue learning. But think of it as more than that – think of it as a challenge to keep on learning.

A lot of the knowledge you now have is based on facts – which is another way of saying that it is based on the best we know, at the moment, about the universe we live in.

Never forget that everything we know is based on what we have observed. So a fact today may well be shown to be false tomorrow!

It turns out that graduates, engineer and researchers, like you, are always observing things better, understanding things better, and developing more accurate models of the real world based on that improved understanding.

Recently I was challenged to address the issue of why there appears to be more lightning than in the past. Well, part of that answer is that it is possible that, in fact, the climatic conditions are such that there is indeed more lightning – sunspot cycles notwithstanding.

Another part of that answer, of course, is that our current measurements are in fact inaccurate, or perhaps that we are now better able to actually monitor each and every lightning strike on the planet – which we were not able to do a mere few years ago – so perhaps we are just measuring better.

We are observing better.

This implies, of course, that as you continue to learn, you fast will realise how little you really do know! It also implies that, by meeting the requirement for confirmation of your degree today, you have, in effect, only just joined the game.

You haven’t won yet!

In addition, you have earned the right to say that you do not know!

As they say, “a wise person changes their mind - a fool never will.”

You will meet many such fools – but never allow yourself to become one.

So, the third point this afternoon, is you have earned the right to continue learning. And that this objective must stay with you for all your days.

Ladies and gentlemen, in conclusion, may I remind you?

- South Africa is in trouble – it needs you – it needs your care.
- Caring, I believe, speaks to our attitude, and our attitude is a cornerstone of our competence: knowledge, skills and attitude make up your competence
- And, this afternoon you earn the right to continue learning

Whereas you may just choose to sit idly and watch the world go by – with your qualifications that would be sad indeed!

Every one of you, by your achievement that is recognised today, has identified yourself as a leader. As such, you have on your shoulders the responsibility of humbly discharging that duty.

But please remember how remarkably fortunate you are. This degree and diploma puts you right up at the top of the pile – whether you like it or not – and that is a position of responsibility not to be taken lightly.

But, most important of all – enjoy the celebrations.

May I wish you all the very best, and may I encourage you to dare to dream about the future. And challenge you to really help to make it what you want it to be!

Thank you.