SANRAL SCHOLARSHIP PROGRAMME

WHERE ARE YOU HEADING?

What is your final destination?

This brochure will give you information on engineering fields, including civil, transport, electrical and electronic/computer engineering.
Be Practical  
Participate  
Have Integrity
Be Caring

Excell in everything you do
Without you, our jigsaw puzzle will be incomplete. For once hard work throughout your school career will give you something spectacular in return.

If you do, you are half way there; your final destination is slowly but surely becoming a reality!

You qualify for a scholarship through SANRAL!

The scholarship programme is for learners who want to follow a career in engineering, with particular reference to civil, transport, electronic/computer and electrical engineering.
You bring excellent academic results to the table, so what does SANRAL offer in return with the scholarship?

- School fees
  (Including boarding fees if applicable)
- Books and stationery
- Uniform
  (One set for summer and one set for winter)
- Sport uniform (one set)
- Mentoring and assistance with exam preparation
- Hosting your parents at a gala dinner
- Hosting you for two weeks to visit SANRAL and Universities in South Africa

Your COMMITMENT:

- Average of 75% and above
- Science, Maths, Afrikaans or English above 75% (Including the third paper for Maths)
- Two weeks of SANRAL activities
- Submission of all your results and evaluation by your teachers to SANRAL
- Ambassador for SANRAL
- Attendance of SANRAL functions upon invitation
- Preparing yourself for a career in Civil, Electronic/Computer, Electrical or Transport Engineering
We know about you, but do you know about us?

SANRAL is the abbreviation for the South African National Roads Agency Limited.

Let’s get down to serious business for your future interest by making SANRAL part of your career planning!

**THE SANRAL VISION**
To be recognised as a world leader in the provision of a superior primary road network in southern Africa.

**MISSION**
As the custodian of a public good we are committed to the advancement of the SOUTHERN AFRICAN community through:
- A highly motivated and professional team;
- State-of-the-art technology;
- Proficient service providers; and
- Promoting the “user-pay” principle.

**CORE VALUES**
- E-xcellence
- P-roactiveness
- P-articipativeness
- I-negrity
- C-are

EP²IC
who express an interest in studying and building a career with SANRAL or similar organisations, within the built environment; specifically in the fields of Road Infrastructure, Intelligent Transport System, Environment and Civil Engineering industry.

As you journey
learners to take an “EP²IC” journey

SANRAL encourages

EP²IC
start your journey
Excell in everything you do
Be Practical
Participate
Have Integrity
Be Caring

If your answers to these questions are YES, this brochure is for you!

Ask yourself the following questions to make sure you are on the right track:

Are you creative?
Do you enjoy Maths & Physical Science?
Do you enjoy solving technical problems?
Do you think practically?
Do you like continuous change?
Do you enjoy working as part of a group?
Are you prepared to work VERY hard?

SANRAL is committed to developing skills of learners who express an interest in studying and building a career with SANRAL or similar organisations, within the built environment; specifically in the fields of Road Infrastructure Administration, Intelligent Transport System, Environment and Civil Engineering industry.
A civil engineer has graduated from a post-secondary school with a degree in civil engineering, which requires a strong background in mathematics, economics and the physical sciences.

This degree is typically a four-year degree; though many civil engineers continue on to obtain masters or doctoral degrees in engineering. The Civil Engineering profession offers excellent careers for both men and women.

Inquisitive about the path to success, ponder no more...

Civil Engineering is an ART based on wide knowledge, the ability to think creatively, and involves the planning, designing, construction and management of projects.

Are you a person with the following qualities?

- A creative, yet logical thinker
- A problem solver
- Systematic in your approach to problems
- Likes to take on challenges
- A good decision maker
- Likes to improve the quality of community life
Their role is central to ensuring the safe, timely and well-resourced completion of projects including highway construction, waste management and geotechnical engineering.

Civil engineering is perhaps the broadest of the engineering fields, for it deals with the creation, improvement, and protection of the communal environment, providing facilities for living, industry and transportation, including large buildings, roads, bridges, canals, railroad lines and airports.

Civil Engineering harnesses the power of nature for the benefit of human beings.

Civil engineers are involved with the design, development and construction of a huge range of projects in the built and natural environment.

Civil engineering creates habitats.

This field requires people who are mathematically inclined, can make decisions, can delegate, can control assignments, think logically and work systematically.
TRANSPORTATION ENGINEERING
under the microscope at toll gate number 2

Roads, cars, trucks, waterways, ships, aeroplanes, airports, trains, railways and petro-chemistry are all part of the transport industry.

Transportation engineering involves the construction of the facilities and structures, such as bridges, roads, airports, highways, railways and dams.

Once again, maths and science are prerequisites.

Transport engineering or transportation engineering, is the science of safe and efficient movement of people and goods.

Transport engineering is a sub-discipline of civil engineering.

The planning aspects of transport engineering relate to urban planning, and involve technical forecasting of growth of transport in a country.
Electrical and electronic/computer engineering is the study of the behaviour of electrical, electronic or electromechanical systems. This is a mouthful, but so is the dedication you will need to succeed as an electrical or electronic engineer.

**ELECTRICAL AND ELECTRONIC/COMPUTER ENGINEERING**

Electrical and electronic/computer engineering team solves problems in an attempt to improve people’s quality of life by providing electrical power and the digital and analogue distribution of information via radio, radar, computer, telephone and TV.

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Electrical and electronic/computer engineering may also involve the electricity distribution for a region, or the control of the processes at a hydroelectric plant or a factory. Thus, electric and electronic engineers are those very intelligent people giving South Africa light.

Although electrical and electronic/computer engineering are moving closer together, there is still a difference in emphasis. In electrical engineering one designs, manufactures, installs and manages appliances and installations that generate or use electrical energy.

In electronic/computer engineering one designs, manufactures, installs and manages systems, equipment and components used in fields such as telecommunications, navigation and data processing, and control systems.

**IF YOU WOULD LIKE TO BRIGHTEN UP your career path,**

THIS IS THE WAY TO GO!
The SANRAL Scholarship programme was initiated with the aim of providing sponsorships for learners with an aptitude towards maths and science. It also aims to create opportunities for tertiary studies in certain engineering fields namely civil, electronic/computer, electrical and transportation. In addition, the scholarship programme seeks to build progressive relationships with these learners from an early stage.

The first intake of scholars for the programme was in the 2009 academic year. The selection process was based on academic merit proven through academic results. Motivation letters by both learners and parents as well as from school principals were required to support learners’ applications. After the selection process, students were chosen from Gauteng and a total of 40 from the Western Cape; with the requirement that they continue to obtain above 75% for Maths and Science as well as an average of above 75%.

Whilst the Gauteng learners come from schools across the province, learners in the Western Cape attend the Centre of Science and Technology (COSAT), a specialist school based in False Bay (Khayelitsha). Learners from (COSAT) come from disadvantaged backgrounds but have a strong ability and interest in both maths and science. The Science Education Resources Initiative (SERI) is a non-profit organisation that operates in partnership with COSAT and through its GET Building Programme, nurtures the potential of the learners through enriching activities so that they may achieve academic success.

SANRAL has joined this partnership by funding 40 GET Building learners who are currently in Grade 10, with the aim of providing an opportunity for these learners to be equipped with the knowledge and skills that is needed to study at selected universities.
The aim of the Engineering Week was to provide prospective engineering students with the opportunity to receive information about the engineering field and the entrance requirements of the University. They were exposed to both the theoretical and practical aspects of the various disciplines in engineering as a means of career guidance. Learners gained valuable insight from this experience and it put into perspective the opportunities that lay ahead for them, provided that they remain committed to the excellence and merit that SANRAL has seen in them.

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AS PART OF THE SCHOLARSHIP, SANRAL is responsible for the school fees, books and stationery, as well as school and sport uniforms of the learners. SANRAL also arranges for learners to attend beneficial, extra curricular activities. One such activity was the Engineering Week which was held from the 5 -8 April 2009 at the University of Pretoria and attended by the Gauteng learners.
LEARNER EXPERIENCES

**Engineering is not just a profession but an ‘enginous’ way of thinking.**
During the week I realised that every aspect of my life was made better by engineers. The week changed my perspective and made me aware of the fact that life skills are fundamental necessities. I learned that in order to succeed I must challenge my excuses, and focus on my results. Throughout the week I felt I was stuck in a dream, one that I am very thankful for. It has left a mark of direction and an informative mindset. I really enjoyed it. It was an exhilarating experience.

**The April Engineering week 2009 was one of my few most phenomenal experiences I have ever had.**
The engineering week’s main objective is to inform and uplift the diverse engineering field so that more students can understand and find an interest in this study direction. I enjoyed our excursion tour of the campus and the opportunity to experience the student life with my stay in the Jasymn hostel. I would personally advise all high school students to uptake this event as it can only positively affect your future and gives much guidance to who you are and what studying fields you are interested in. Don’t miss out as you will only disadvantage yourself.

**The Engineering week was great! There was just so much to do and so little time. In general the week was very educational & informative. It has left me open minded!**
I felt as if I could make a contribution to the engineering world; and that I formed part of something. I understood the importance of an engineer’s job and was inspired. I would go the extra mile to reach that point.
The Engineering week was fun because we learnt so much and are now more prepared to make important career choices. I was able to gather new information to help me understand the career path I have chosen, which is Civil Engineering.

One thing that stood out to me the most is that I learnt that a Civil Engineer creates and designs facilities to enhance the ability of life.

The fun activities allowed a diverse group of people to be able to socialise, and I had the opportunity to meet people who had the same ambitions and dreams as I.

The Engineering week 2009 proved that the University of Pretoria is a leader in higher education. I am grateful that I had the opportunity to be part of it. It has confirmed to me that I have made the right decision in my career choice. I am now 100% sure that I want to do engineering for the rest of my life. It’s all thanks to SANRAL for having trust in me. Winning the SANRAL scholarship has really inspired a lot of my schoolmates to get up and surf the net on the quest to find scholarship applications from a wide range of different companies.

I spent a lot of time with them; asking them questions about their experiences in varsity, how they have managed to adapt, and I would say I definitely enjoyed every second of my stay at UP. Varsity life is already starting to dwell slowly in my bloodstream.

We need companies like SANRAL in effectively building this nation through education.

After being so widely informed we had to choose which department we wanted to visit on the afternoon of the second day. I visited Mechanical Engineering where they showed us a car they are building that will eventually be able to drive itself and a wind-tunnel that uses compressed air to simulate supersonic aerodynamics.

I also visited Electronic Engineering where a student who is doing research at the CSIR showed us a robot that he is working on.

I think this is a great initiative by SANRAL... And, what a legacy to leave behind.... Opportunities for bright and eager young people to become what they want to!!

Ms Alice Mathew
SANRAL Company Secretary and Risk Officer
APPLICATION FORM

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YOUR APPLICATION SHOULD BE POSTED OR HAND DELIVERED TO:

HAND DELIVERED:
MS HEIDI HARPER
CORPORATE SERVICES EXECUTIVE
SANRAL SCHOLARSHIP
THE SOUTH AFRICAN NATIONAL ROADS AGENCY LTD
DITSELA PLACE
1204 PARK STREET
HATFIELD, PRETORIA

POSTED:
MS HEIDI HARPER
CORPORATE SERVICES EXECUTIVE
SANRAL SCHOLARSHIP
PO BOX 415
PRETORIA, 0001
SOUTH AFRICA

INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED
USEFUL CONTACT DETAILS of Universities in South Africa with engineering faculties.
1. North-West University
   www.nwu.ac.za
   (018) 299 1533

2. University of Cape Town
   www.uct.ac.za
   (021) 650 2584

3. University of Johannesburg
   www.uj.ac.za
   (011) 559 6073
   (011) 599 6223
   web_engineering@uj.ac.za

4. University of Pretoria
   www.up.ac.za
   (012) 420 4095 (student administration within faculty of engineering)

5. University of Stellenbosch
   www.sun.ac.za
   (021) 808 4835 (study and programme enquiries)
   (021) 808 4876

6. University of Witwatersrand
   www.wits.ac.za
   (011) 717 7000 (engineering faculty)