

Wind Turbine Engineer

WHY DID YOU CHOOSE THIS CAREER?

I was born and lived my whole life in Germany. When I finished school with Abitur, which qualifies you to enrol at any university, I basically had no idea what I wanted to do. I was very good at mathematics and physics, but didn't want to miss out on the practical side of it. That's why I chose to study mechanical engineering at a University of applied sciences.

WHAT TRAINING DID YOU UNDERGO, AND WHERE?

I studied mechanical engineering at Kiel University of Applied Sciences in Germany. My first contact to the Renewable Energy (RE) industry was my last semester industry project at one of the wind technology leading companies REpower Systems (today SENVION). After working abroad in South Africa for a year in the heavy metal industry made me realize I wanted to know more about RE technology, especially wind driven energy converters. I enrolled for a 2 year international Master of Science programme in Wind Engineering at Kiel/ Flensburg University of Applied Sciences and successfully graduated last year.

WHAT DOES YOUR JOB ENTAIL?

I develop and review the teaching, training and learning material for the occupational certificate of the Wind Turbine/ Solar PV Service Technician course at SARETEC. Besides that, one of my main responsibilities

is to manage and structure training related aspects, like meeting with key decision making people from industry, to better understand what the needs and requirements for technicians of this new RE technology are and how I can address and tailor our training modules to this. Additionally, I manage and organize short courses and workshops for people from the relevant industry.

DESCRIBE AN AVERAGE DAY?

I usually start my day by checking my emails and calendar. I try to answer as many emails as possible and prepare for myself later meetings before I have my first cup of cappuccino with my colleagues. We would then typically discuss what needs to be done or talk about RE industry related news. Back behind my desk I research, develop and put together new learning, teaching and training material for our long and short term courses we offer here at SARETEC.

In the afternoon I sometimes have meetings with people from the RE industry to discuss topics around our training, or new ideas for the training facility.

WHAT DO YOU ENJOY MOST?

The cappuccino that our very fancy fully automated German Miele coffee machine produces! Besides that, I enjoy working with like-minded people. Especially in the RE



Boris Wanschura

industry, people are passionate about green and sustainable ways of living in general. Helping our students to understand this new technology and how to install, maintain and operate it gives me great pleasure.

WHAT ARE THE MOST ENJOYABLE ASPECTS OF YOUR POSITION?

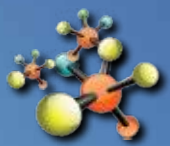
Working in a small team of professionals where decisions making processes are still quick and efficient, is great fun. I can bring in my own ideas and feel well respected in my team.

WHAT IS THE LEAST ENJOYABLE PART OF YOUR JOB?

There is not much that I don't enjoy in my job. I'm not that kind of person that would work only to make a living. If things don't go well for too long I would try to change them or simply move on. You can only be good in what you are doing when you enjoy doing it. The only thing I would like to change is the way I commute to work. For time and safety reasons I need to take my car. Back then in Germany I enjoyed the organized, reliable and safe public transport.

CAREER HIGHLIGHTS?

My current position at the new South African Renewable Energy Technology Centre



(SARETEC). Developing and shaping the first recognized qualification to become a Wind Turbine Service Technician is a unique opportunity.

3 IMPORTANT QUALITIES THAT YOUR POSITION REQUIRES?

First, you need a good understanding of how electrical and mechanical components of this new RE technology work. Second, you have to feel comfortable to speak in front of students and last, you have to be passionate about what you teaching. Only then, you will succeed.

IN 1 SENTENCE, DESCRIBE YOUR JOB?

In my job I develop the necessary theoretical and most important practical training for Wind Turbine and Solar Photovoltaic Service Technicians to get them 100% ready for the work they have to perform on site, sometimes in 100 meters height.

EXPERIENCE VS. TRAINING?

Nothing in the world beats professional work experience; doing hands-on work shows if you really understand what you are doing. But proper work planning and understanding what is behind the technology requires class-room training and reading books. In my experience, the best solution is a mix of both, learning in class and being able to apply it in the workshop straight away. This is our concept here at SARETEC. "Chalk & Talk" is easy to do, but it is the practical exercises in our workshop that adds value to our courses and will give the student confidence to perform good work on site.

ADVICE FOR PEOPLE CONSIDERING THIS CAREER?

Working in the field of RE energy technology is a lot of fun. You need to think "green" and sometimes I see myself as an "ambassador" for RE when convincing the people around me how much sense these new technologies make and how fortunate the people of South Africa are with the countries abundance of wind and sun resource. A Wind Turbine Engineer or Service Technician has to have many talents.

TYPE OF PERSON THAT WOULD ENJOY THIS KIND OF CAREER?

In this particular field as a Wind Turbine Engineer or Service Technician you have to have many skills. You must be fit for climbing up 100 meter wind turbine towers; a service lift is not always available. You have to be able to understand mechanical and electrical components of the system when operating, servicing or performing fault-finding. You also might be ending up fixing damaged wind turbine blades in 50-100 meter heights, which requires knowledge on how to handle and repair composite materials. You got to be an "all-rounder".

POTENTIAL FOR GROWTH - WHERE CAN YOUR CURRENT POSITION LEAD?

I foresee a huge demand for engineers and technicians for RE technologies. With the DoE's current Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) that started 2011, a total of 6327 MW capacity in four and a half rounds of competitive bidding has been awarded, of which about 1709 MW is already connected to the grid and feeding in much needed electricity. The minister of Energy has even made a new determination of additional 6300 MW capacity for RE technology.

WHAT CHALLENGES HAVE YOU HAD TO OVERCOME?

Being a foreign national in this country is surely not easy. There is a lot of paperwork required to get the right stamp in your

passport. You got to play by the rules and be patient. Career wise, being a first and second time dad while you are busy finishing your master's degree and trying to find a job was probably one of the best experiences in my life, although the most challenging.

WHAT QUALIFICATIONS DO I NEED?

The Master of Science degree in Wind Engineering is an international study programme held in Kiel and Flensburg in North Germany. The programme is open to international students, having finished a 4-year Bachelor of Engineering programme. There are many study programmes offered around the globe and even here in South Africa, to become involved with RE technology. If you want to become a Wind Turbine Service Technician, you should have at least one the following trades: Electrician / Mechatronics / Millwright / Fitters and Turners / NDip Mech / Electrical / Mechanical with +/- 3 years Experience or applicable

WHAT ARE YOUR CAREER GOALS?

Becoming a technical expert for wind turbine and solar technology.

IS CONTINUING EDUCATION AND FURTHER STUDIES IMPORTANT IN YOUR TYPE OF CAREER?

Yes, it is very important as an engineer to keep up to date with the technology and refresh your basic knowledge in terms of engineering principles.

