



ENSURING SAFETY & SECURING TARGETS IN PRODUCTION INTENSIVE MINING ENVIRONMENT

Instrumentation and Control Technicians perform a very important role in the production-intensive industrial, commercial and mining processing operations environment. Managing plant measuring and control equipment, they install and service a variety of plant systems including safety and security, energy delivery (hydraulic, pneumatic and electrical), communication, and process control systems. Meet Arsenio Mouton, a C&I Technician, employed by diamond mining giant, Namdeb. This is his story.

YOUNG HANDYMAN

Born and raised in Windhoek, Arsenio Mouton, already during his days at Pionierspark Primary School demonstrated an eagerness to work with his hands. “I’ve always been fascinated by how things worked, especially electronics. It started with my remote control toy cars and later appliances such as video machines and TV sets; taking them apart to see what was going on inside; what made them tick”, Arsenio reminisces.

“Reassembling these items were often not as easy, as taking them apart. And when you do, they don’t work anymore, which often landed me in hot water. But looking back now, I guess it guided my parents into realising that I was more technically, then academically-inclined”, he adds.

Appreciating their child’s technical keenness, his parents enrolled him at the Windhoek Technical High School, where Arsenio completed his secondary school education in 2009. “I am indebted to them for their foresight. However, enrolling at a technical school comes with some stigma, as people tend to assume that technical schools are for those that are not academically gifted. And often, friends would tease you. But, I made the most of it and I excelled in Mathematics and Science”, Arsenio shares.

TERTIARY STUDIES

Arsenio’s Grade 12 results gained him entry to former Polytechnic of Namibia for a diploma course in Engineering Technology. Once he acquired his diploma, he enrolled for a Bachelors of Electronic Engineering degree at the same institution, now the Namibia University of Science and Technology, which he obtained in 2015.

NUST’s Electronic Engineering course is quite intensive and covers a wide range of areas, including Material Mechanics; Computer-Aided Drawing; Chemistry; Mechanics; Electronics; Applied Computer Programming; Intelligent Robotics; Control Systems; and Measurement Instrumentation. “I was disciplined. One can get distracted easily, but I think what helped in keeping me on track, was that I actually enjoyed the courses. It may sound strange, but the advanced circuitry models, intricate mathematical

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Arsenio Mouton

Instrumentation Technician

formulae and fabrication design were fun, actually. And because I enjoyed it, it made it easier to cope with the demands. It was therefore a no-brainer when I acquired my diploma, to immediately enroll for the degree course”, he says.

“Electronic engineering is a rapidly advancing profession and is the driving force behind the development of the world’s information technology. From a theoretical perspective, the courses were well-structured and balanced. You also acquire other soft skills to prepare you for the labour market, such as numeracy and data analysis skills and advanced computer skills”, adds Arsenio.

WORLD OF WORK

Arsenio soon landed his first job as a Solar Installation Technician at local firm, Hopsol Africa, where he was responsible for the design and planning of solar electricity systems and the monitoring of installations. “Entering the labour market seemed daunting at first, but my Hopsol Africa supervisors made the transition easy; taking me under their wings and giving me the scope to not only apply my academic knowledge, but to gain invaluable on-the-job experience, as well. I guess for many of us that very first job would always be special; not always because of the very first paycheck, but because of the fact that it is where our employment journeys started”, Arsenio notes.

“At Hopsol, we provided turnkey solutions for photovoltaic power plants, while the company also acted as a wholesaler of all relevant parts for photovoltaic solar power solutions. Exciting work that laid the foundation for my career growth”, he adds.

Arsenio’s stint at Hopsol Africa was eventful, but short-lived. An application to Namdeb resulted in him being appointed as a Control and Instrumentation Technician at the diamond mining giant. “Working at Hopsol Africa allowed me to gain valuable experience in the photovoltaic power sector. The company’s strong emphasis on values like reliability, flexibility and professional competence certainly helped me in developing a hands-on mentality. However, when Namdeb came calling, I simply couldn’t refuse. And the job is right up my alley”, he notes.

IMPORTANT COG

Mines exist to produce valuable commodities, while making profits for investors and key shareholders. Production is expensive and the need to ensure optimum production levels is of utmost importance. If a mine can’t produce, it can’t make a profit.

Control and Instrumentation technicians play an important role in mining operations in optimising production. Whether diagnosing and repairing faults, maintaining and adjusting system components, or removing and replacing defective parts, they keep plants going and ensure targets are met.

“The four foundational measurements that instrumentation and control technicians deal with are pressure, flow, level and temperature. We install, calibrate and maintain components and instruments according to manufacturer specifications. We have to ensure that every level proxy sensor is working properly. We’re basically the eyes and the ears of the plant. So anything automated and which has a low voltage and low current, such as sensors and meters; that is where we come in”, Arsenio explains.

“The sensors and meters relay essential information about production. For example, is a water valve opening and closing; what is the level of the slurry bins; what is the weight of the bin. If the operators don’t have this information, a slurry bin can overflow and result in spillage and loss of production. This information is therefore of utmost importance in ensuring that you are running at optimal levels. Without it, you can easily go astray and production targets are then compromised”, he adds.

EXCITING WORK

Arsenio is a good problem solver. Diligent, attentive and safety conscious; and armed with his trusted multimeter, this Senior Instrumentation Technician and his team add significant value to the mine’s bottom line in a production environment that is becoming increasingly automated.

“For my team and I, our primary goal is recovery efficiency. And yes, we do achieve those targets. Our main objective everyday is to ensure that all diamond recovery machines are operating efficiently, and as per manufacturer specifications”, he stresses.

While interviewing Arsenio, a call came through from the control room that a water pressure regulator on the plant was malfunctioning. Fit and dexterous, and without any support and supervision, he springs into action, rushing to the site to test the regulator with his multimeter; and then on to the mine’s inventory store to collect a replacement part. “This job is not for everyone. You need to be patient and work well without direct supervision; whether you’re working solo, or within a team. Your problem solving and troubleshooting skills need to be second to none. You need to think on your feet and often you need to take tough decisions that might result in slowing down production”, he highlights.

SAFETY CONSCIOUS

It is not only Arsenio’s skill and ability to fix sometimes very complex instrumentation challenges that make him an asset to Namdeb, but the high premium he assigns to safety, as well. This trait ties in well with the mine’s philosophy of securing the safety of its most important resource - its workforce.

“Here at Namdeb, before we do any job, we first apply the SLAM principle: Stop, Look, Assess and Manage any risk we might find. It’s not all about the diamond

carat production targets. Here, we take pride in our safety record and we do not compromise on the safety of our most important resource, our workers. There are safety hazards all over at a plant, particularly when working with substances under pressure or at high temperatures”, he highlights.

Namdeb employs conveyor technology, which reduces the incidence of worker injuries significantly and Arsenio and his team of C&I technicians play an important role in keeping the conveyors safe and functioning.

“If you think about it, the very instruments and control meters and gauges we install make the work environment a safer place. If I can limit the number of workers close to a belt, it creates a safer environment for everyone, because if someone accidentally falls onto a conveyor, it just creates unnecessary challenges. So our work is very much about creating a more hands-off environment and it also make the operator’s work a lot more easier”, explains Arsenio .

LIFELONG LEARNER

Excelling in the mining environment with its sustained focus on increased levels of automation in boosting production and profitability, Arsenio is now reading for a Master’s degree in Industrial Automation.

“Actually, the goal is registration with the Engineering Council. Not that it’s easy, because after physically taxing shifts, you need to dig deep to find the energy and motivation. But, I need to persevere, because registration will just open more doors”, he shares.

“It’s important that I stay abreast of new technologies. The Fourth Industrial Revolution has dawned upon us and as far as the control and instrumentation field is concerned, already there are talks of new technologies and mechatronics through which sensors and gauges would be able to connect to the Internet cloud. This would mean that I no more would have to go to test a gauge on site. Instead, the gauge would relay a signal and tell us that it’s broken and needs to be replaced. We need to keep track with these changes”, Arsenio highlights.

Arsenio embraces the fast changes being brought about by enhanced production automation processes. “In a few years time, this trade is going to be much more about computer software applications, then anything else. This bodes well for my own plans as I have developed a strong interest in programming, as well. I’m just aligning myself for these changes that are sure to come”, he stresses.

CAREER AMBASSADOR

A good Control and Instrumentation Technician possesses critical traits such as self-discipline, problem-solving skills, attention to detail, great communication skills, a passion for technology, and patience in spades. The technically savvy Arsenio ticks all the boxes in working under pressure and meeting tight deadlines in

a cutthroat production environment. “It is a lucrative trade and qualified technicians earn solid incomes. Employment opportunities are available in numerous industries and with growth in the manufacturing and mining sectors, jobs are abundant. But, you should not enter this field for this reason only. In my book, for you to excel, you need to have a passion for electronics and nerves of steel to work in a pressure-cooker environment”, he notes.

“I can recommend this career path to young Namibians who feel they have what it takes. More and more women are also joining the fray, which is very encouraging. Bottom line is, this is one of this trade areas that keeps you on your toes. Things are changing fast and if you are not prepared to embrace lifelong learning, you’ll risk your skill set to lose its relevance. It is about learning, and re-learning and learning again”, Arsenio adds.

When not at work, Arsenio spends time with his wife, Sheena. “She relocated to Oranjemund. A marketer by profession, there’s not much scope for her line of work here, but we are working on something that would allow her to live her passion too. We are a team now, and teams work together. Who knows, we might just welcome more members to Team Mouton, soon”. As they got married quite recently, the couple’s only ‘children’ are their adopted dogs, whom they often take for walks on the Oranjemund beach. “Relaxation is important, especially when you work at a mine. In fact, our employer encourages us to break away often to reinvigorate and recharge the batteries and we grab the opportunity to visit family and friends here in Namibia, or in South Africa”, Arsenio concludes.

Arsenio Mouton: Arsenio Mouton - diligent, industrious and conscientious. Driven by his aspiration to excel in the industrial automation field and to add value to the work and output of his employer, the sky is the limit for this energetic and ambitious Control and Instrumentation Technician. His story teaches us that hard work always pays off; that hard work beats talent any day. But more: If you’re talented and work hard, you will be hard to be beat. He is living his passion!

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