

Skills development in South Africa through Idea2Product Lab layout for effective learning.

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Abstract

Idea2Product Lab which is a sub-department of Technology Transfer and Innovation based in Vaal University of Technology (VUT) main campus and also in VUT Southern Gauteng Science and Technology Park, Sebokeng. The Lab is a self-help which was established in 2011 as the first South Africa laboratory dedicated into assisting students, staffs and people from around the community (which are the clients) into converting their Ideas into Product, prototype through the use of 3-Dimension software's and entre-level Fuse Deposit Modeling (FDM) printers popularly called 3D printer. These enable the clients to learn how to put their ideas down and fashion it into different designs and then into a product, which give them design skills and also a potential to generate income and create job through the use of intellectual thoughts. This abstract is more about the main campus Idea2Product Lab facility layout, the inclusiveness which encourages effective and interactive learning, and easy access point and management, the main lab layout is more suitable for maximum of fourteen (14) people and two to three Lab Assistants and Technicians who are assigned to assist the clients and properly managing clients details.

Keywords (12 font)

Idea2Product, Additive Manufacturing, FDM, Facility Layout, Skills development, Management

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Biography

Godfrey .O. Nwanekah is a self-motivated individual, who strive for knowledge and also applying those knowledge into the real-life situations for the benefit of mankind, motivating people on talent discovery, sustainability and skills development to achieve success and fulfillment. He is multi-talented and skilled person in

different areas of interest and having being a member of the University Student Parliament, Student Representative Council and other leadership roles and skills. He is part of the five-time USSA Softball Champion and other sporting achievements. He holds NDip: Industrial Engineering, BTech: Industrial Engineering and currently doing MTech: Industrial Engineering in Vaal University of Technology, he has being in the Additive Manufacturing Industry for over four years, consultant and many more.

Malan Van Tonder holds a MTech and DTech in Electrical Engineering from Vaal University of Technology, he is a researcher and a specialist in Additive Manufacturing at VUT Southern Gauteng Science and Technology Park in Sebokeng, South Africa. He is part of the research committee at the Vaal University of Technology and his passionate about development and impacting in the lives of people from all works of life. He has written and presented in many conference in South Africa and Africa.

Deon De Beer is a professor in Mechanical Engineering, a world-renowned researcher in Additive Manufacturing/Rapid Prototyping Development and currently the Chief Director of North-West University, Potchefstroom Technology Transfer and Innovation Support