

REFLECTIVE ELECTRICAL ENGINEERING LEARNING (REEL2026)

Building Skills and Professionalism through
Industrial Training

SKILLS



REEL2026
Reflective
Electrical Engineering Learning

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BUILDING SKILLS AND PROFESSIONALISM THROUGH INDUSTRIAL TRAINING



REEL 2026

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*"Building Skills and Professionalism
through Industrial Training"*

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*Reflection transforms
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Hands-On Learning in Semiconductor Manufacturing: My Internship at Inari Technology Sdn. Bhd.

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Before commencing my industrial training at Inari Technology Sdn. Bhd., I anticipated a fast-paced environment typical of the semiconductor manufacturing industry. As an electrical engineering diploma student, I pictured myself immediately diving into complex circuit analysis and handling advanced machinery. However, stepping onto the production floor and particularly into the highly controlled environments quickly taught me that precision, safety, and strict adherence to standard operating procedures are the true foundations of the industry. The reality of the workplace was much more structured than I had imagined, requiring a meticulous and patient approach to every task before any hands-on technical work could even begin.



Figure 1: Machine to perform Golden Unit Calibration (GUCAL)

During my placement specifically within the Testing Department, I was entrusted with a critical technical task, performing Golden Unit Calibration (GUCAL). In semiconductor testing, a "golden unit" serves as a flawless reference device used to verify the accuracy and reliability of automated testing equipment before mass production runs begin. My daily responsibility involved carefully handling these highly sensitive reference units, executing strict calibration protocols, and analyzing the output data to ensure the test handlers were functioning within precise tolerance limits. This hands-on process required immense focus and attention to detail, as even a minor calibration error could lead to false passes or false failures, potentially compromising thousands of products. Executing GUCAL procedures not only honed my technical proficiency in equipment handling and diagnostic software but also instilled in me a profound appreciation for the rigorous quality assurance standards that govern the semiconductor industry.

The core of my internship involved bridging the gap between theoretical classroom knowledge and practical industrial applications. I was given the opportunity to assist senior technicians and engineers with preventive maintenance, equipment calibration, and troubleshooting automated manufacturing and testing equipment. One of the most eye-

opening experiences was learning to diagnose faults in intricate electronic components under strict time constraints to minimize production downtime. Unlike the controlled environment of a university laboratory, the high-volume equipment at Inari Technology demanded a high level of accuracy and immediate problem-solving. This hands-on exposure not only sharpened my technical proficiency but also deepened my understanding of semiconductor testing, assembly processes, and machine diagnostics.

Beyond the technical competencies, my time at Inari Technology imparted invaluable life lessons and professional soft skills. I quickly realized that successful engineering is not an isolated endeavor but heavily relies on effective communication, teamwork, and cross-departmental collaboration. Whether it was interpreting complex schematics with my supervisors, documenting maintenance reports, or coordinating with operators on the production floor, clear communication was essential. Despite the initial steep learning curve, the mentorship I received helped build my confidence and adaptability. Ultimately, this internship has proven to be a transformative journey, equipping me with the resilience, technical acumen, and professional mindset necessary to thrive in the dynamic field of electrical engineering.

Authors' Biography



Muhammad Amir Harith bin Azizan is currently pursuing a Diploma in Electrical Engineering at Universiti Teknologi MARA (UiTM) Cawangan Pulau Pinang. As part of his academic requirements, he is undergoing industrial training at Inari Technology Sdn. Bhd. from 23/2/2026 to 30/6/2026. Placed within the Testing Department, he is actively involved in critical technical tasks, including performing Golden Unit Calibration (GUCAL) to verify the accuracy and reliability of automated semiconductor testing equipment. Through this hands-on experience, he is successfully bridging the gap between theoretical knowledge and real-world application, developing the vital technical and analytical skills needed to thrive as a professional in the semiconductor and electrical engineering industry



Ts. Linda binti Mohd Kasim is a Senior Lecturer at Universiti Teknologi MARA (UiTM). She holds a Master of Science (M.Sc.) in Electronic System Design Engineering and a Bachelor of Engineering (Hons) in Electrical Engineering (Microelectronics). Additionally, she received her Diploma in Electronic Engineering from Universiti Teknologi Malaysia (UTM).

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