

REFLECTIVE ELECTRICAL ENGINEERING LEARNING (REEL2026)

Building Skills and Professionalism through
Industrial Training

SKILLS



REEL2026
Reflective
Electrical Engineering Learning

REFLECTIVE ELECTRICAL ENGINEERING LEARNING

BUILDING SKILLS AND PROFESSIONALISM THROUGH INDUSTRIAL TRAINING



REEL 2026

REFLECTIVE ELECTRICAL ENGINEERING LEARNING

*"Building Skills and Professionalism
through Industrial Training"*

Copyright © July 2026

Electrical Engineering Studies
Universiti Teknologi MARA Pulau Pinang Branch
Permatang Pauh Campus

All rights reserved. No part of this e-magazine may be reused, republished, or reprinted in any form or by any electronic or mechanical means, including photocopying and recording, without prior written permission from the publisher.

eISSN

3093-7027

Published by

Diploma in Electrical Engineering
Electrical Engineering Studies
Universiti Teknologi MARA Pulau Pinang Branch
Permatang Pauh Campus
13500 Permatang Pauh
Pulau Pinang, Malaysia

This e-magazine is published annually

DISCLAIMER



*Reflection transforms
experience into meaningful learning*

The content displayed in this e-magazine is the intellectual property of the Electrical Engineering Studies, UiTM Pulau Pinang Branch (PKE UiTM CPP). Without written consent, no part of this publication may be reused, republished, or reprinted in any form or by any means.

All information published in REEL 2026 is intended solely for educational and informational purposes. The views and opinions expressed are those of the individual authors and do not necessarily reflect the official stance of PKE UiTM CPP or Universiti Teknologi MARA.

The editors and publisher are not responsible for any inaccuracies, omissions, or outcomes resulting from the use of the information provided.

Internship Reflection: Exploring the Electrical Engineering World at Waterbay, Perai

Muhammad Amirul Haikal bin Mansor *Ida Rahayu binti Mohamed Noordin
Electrical Engineering Studies, Universiti Teknologi MARA Cawangan Pulau Pinang,
Permatang Pauh Campus, 13500 Pulau Pinang, Malaysia

*Corresponding author's email: idarahayu660@uitm.edu.my

My internship experience at Waterbay, Prai has been a life-changing journey in both my educational and career path. As an electrical engineering student, I initially had the common fears of a first-time entrant into the industry which questioned whether my classroom knowledge would truly apply in a fast-paced technical environment. However, my internship experience here has shown me that a supportive environment is one of the most powerful factors in learning and growth.

My first day of the internship marked the beginning of my professional journey. I clearly remembered, was given a challenging task. I need to troubleshoot a 3D printer. My academic background is basically more theoretical understanding of circuitry and electronic systems. At first I felt unprepared to handle such complex and specialized equipment.



Figure 1: Laser Cutting Machine Monitor Assembling

Fortunately, the working environment was far from the 'sink or swim' situation I had imagined. The technical team at Waterbay welcomed me and guided me through the troubleshooting process. Figure 1 in the picture shows that I am troubleshooting on Laser Cutting Machine monitor. My supervisor trained me to differentiate between mechanical and electrical faults within the printer system, analyze signal flow to stepper motors and heating elements, and apply logical troubleshooting techniques to resolve technical issues.

In addition to troubleshooting tasks, I was also exposed to maintenance and assembly work involving electrical components and machines. These experiences enhanced my practical understanding of electrical systems, improved my problem-solving abilities, and taught me the importance of following safety procedures while handling technical equipment. Through continuous exposure to real industrial tasks, I became more confident in applying theoretical concepts to practical situations.

What truly made my internship experience extraordinary was the strong support within the team. Despite working in a technically demanding field, the friendship among employees was amazing. I was not treated as just an intern, which is assigned to routine tasks, but as a valued member of the team whose curiosity was encouraged.

The team highlighted learning through hands-on experience. Whenever I encounter challenges, mentors were always available to guide me. This approach turned every difficulty into a valuable learning opportunity. As a result, I have gained confidence in my technical abilities and developed a deeper passion for the field of electrical engineering.

As a conclusion, my internship experience at Waterbay has provided me with valuable exposure to the real working environment and strengthened both my technical and interpersonal skills. Both practical experience, supportive mentorship, and teamwork have helped me grow into a more responsible, confident, and motivated individual. This internship not only enhanced my understanding of electrical engineering applications but also prepared me mentally and professionally for future challenges in the engineering industry.

Authors' Biography



Muhammad Amirul Haikal bin Mansor is a dedicated student currently pursuing a Diploma in Electrical Engineering at UiTM Cawangan Pulau Pinang. He is undergoing industrial training at Waterbay, Prai, where he applies his academic knowledge to real-world technical challenges. With a growing passion for electronics and automation systems, Amirul aims to become a competent and innovative professional in the electrical engineering industry.



Ida Rahayu binti Mohamed Noordin has accumulated 18 years of experience in the field of Electrical Engineering since joining Universiti Teknologi MARA Cawangan Pulau Pinang in 2007. She holds a Bachelor of Engineering (Hons.) in Electrical from Universiti Teknologi MARA Shah Alam, awarded in 2006, and a Master of Science in Electronic System Design Engineering from Universiti Sains Malaysia, completed in 2010.

eISSN 3093-7027



PUBLISHED BY:
DIPLOMA IN ELECTRICAL ENGINEERING
ELECTRICAL ENGINEERING STUDIES
UNIVERSITI TEKNOLOGI MARA (UiTM)
PULAU PINANG BRANCH
PERMATANG PAUH CAMPUS
13500 PERMATANG PAUH
PULAU PINANG