FAKULTI PERNIAGAAN DAN EKONOMI
Faculty of Business and Economics

CBE@UM
Centre of Business Excellence

UNIVERSITI MALAYA

MyTECH PROGRAM: TECHNICAL LEADERSHIP DEVELOPMENT

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Prepared By:

CENTRE OF BUSINESS EXCELLENCE (CBE)
FACULTY OF BUSINESS AND ECONOMICS,
UNIVERSITI MALAYA

About Us

The Faculty of Business and Economics (FBEc) at Universiti Malaya is a leading provider of business, management, and economics education in Malaysia. We offer high-quality programs and conduct applied research tailored to meet the needs, expectations, and aspirations of the community.

Aligned with FBEc's mission, the Centre of Business Excellence (CBE) was established to strengthen industry engagement by offering comprehensive educational and training opportunities that address the evolving needs of professionals and businesses. Our dedication to continuous learning is evident in our tailored approach to upskilling and professional development.

Overview

The MyTech Program: Technical Leadership Development equips engineers with essential leadership, business, and technical skills to excel in today's fast-paced industries. This training combines strategic planning, financial literacy, data analytics, and communication to help participants lead innovation and make informed decisions.

Covering global technological impacts, change management, and bridging technical solutions with business success, the program prepares engineers to drive product innovation, lead teams, and contribute to business growth in a rapidly evolving environment.

Learning Outcomes

The MyTech Program: Technical Leadership Development spans one (1) to two (2) years, with each module spread across four-month intervals, tailored to meet the specific needs of the client. Upon successful completion, participants will be able to:

- **Leadership Capabilities**
  Enhance leadership capabilities to drive innovation and lead cross-functional teams effectively

- **Strategic Business Acumen**
  Develop strategic business acumen to make informed, data-driven decisions aligned with company goals

- **Master Financial and Analytical Skills**
  Master financial and analytical skills to assess and manage the business impact of technical projects

- **Bridge Technical Expertise with Business Strategy**
  Bridge technical expertise with business strategy to deliver market-ready products and drive organizational growth

Methods of Delivery

Each module integrates the latest industry best practices and employs a multidimensional approach to learning, ensuring a dynamic and impactful training experience. The key delivery methods include:
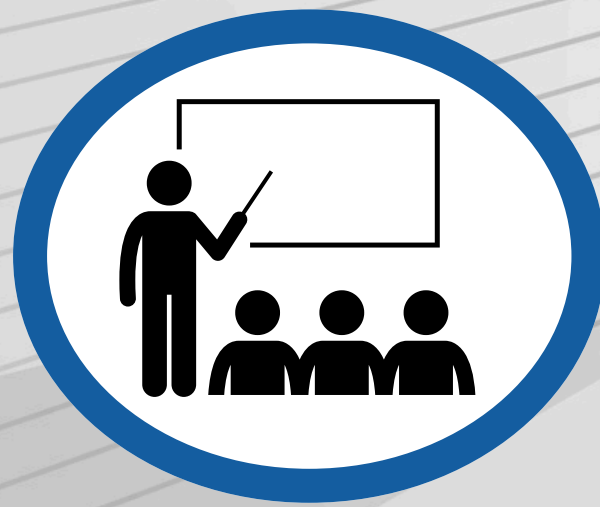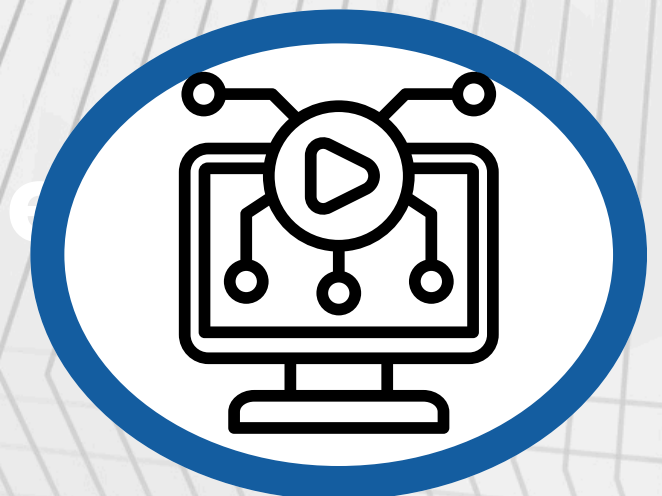
Lectures

Group Discussions

Case Studies

Practical Exercises/ Simulation

Training Modules

MyTech contains six (6) modules:

Module 1: Professional Business Presentation Skills

Module 2: Knowledge-oriented Leadership in Knowledge Management Practices and Innovation

Module 3: Finance for Engineers

Module 4: Industry 4.0 - Machine Learning Application & AI

Module 5: Machine Learning for Business Intelligence

Module 6: Foundations of Product Design

MODULE 1: PROFESSIONAL BUSINESS PRESENTATION SKILLS

The Professional Business Presentation Skills module is designed for employees to develop their public speaking and presentation skills in the business environment It aims at building participants' confidence when speaking in front of the public and providing them with the necessary guides for developing a simple, yet highly effective and efficient style of presentation skills, up to a professional level.

Topic 1 – Presentation & Professionalism
Topic 2 – Embracing Presentation Anxiety
Topic 3 – Adapting to the Audience & Language Usage
Topic 4 – Strategic Communication Styles
Topic 5 – Effective Delivery
Topic 6 – Using Visual Aids Effectively
Topic 7 – Non-Verbal Communication
Topic 8 – Consultation, Preparation Practice
Topic 9 – Presentation Assessment

Duration: 3 days

MODULE 2: KNOWLEDGE-ORIENTED LEADERSHIP IN KNOWLEDGE MANAGEMENT PRACTICES AND INNOVATION

Knowledge-Oriented Leadership in Knowledge Management Practices and Innovation module is designed to explore a leading role in developing successful organisational Knowledge Management (KM) practices. KM is a key discipline for improving business process performance, enhancing the competitiveness and quality of its services, and discovering new solutions and products for its customers. The company intends to establish and incorporate KM initiatives in the search for competitive advantages and requires leaders to create conditions that allow participants in organisations to exercise and cultivate their knowledge manipulation skills, contribute their knowledge resources, and facilitate access to relevant knowledge.

Topic 1 – Leadership 101
Topic 2 – Knowledge Oriented Leadership
Topic 3 – Fundamentals of Knowledge Management
Topic 4 – The Success of Knowledge Management Initiatives

Duration: 2 days

MODULE 3: FINANCE FOR ENGINEERS

This module explores the impact of diversity and technological changes on the business environment. It focuses on how intrapreneurs adapt to emerging technologies and the role of organizational culture in fostering innovation. Participants will learn how to reshape the workplace to create an environment where intrapreneurs can thrive, driving growth and adaptability within the organization.

Topic 1 – Foundation
Topic 2 – Investment Project Appraisal Key Concepts
Topic 3 – Investment Project Appraisal Application
Topic 4 – Profit and Loss Dynamics

Duration: 2 days

MODULE 4: INDUSTRY 4.0 – MACHINE LEARNING APPLICATION & AI

This module focuses on Industry 4.0 applications, leveraging Machine Learning (ML) and Artificial Intelligence (AI) in industrial environments. The module will provide participants with an understanding of Industry 4.0 principles, AI integration in manufacturing, and hands-on experience with ML models applicable to industrial data.

Topic 1 – Understanding Industry 4.0 and AI in Manufacturing
Topic 2 – Introduction to Machine Learning
Topic 3 – Data Acquisition, Cleaning & Processing
Topic 4 – Exploratory Data Analysis (EDA) for Industrial Data
Topic 5 – Predictive Maintenance and Fault Detection
Topic 6 – Anomaly Detection & Quality Control
Topic 7 – Time Series Forecasting for Manufacturing Processes
Topic 8 – Case Study & Final Project

Duration: 2 days

MODULE 5: MACHINE LEARNING FOR BUSINESS INTELLIGENCE

In today's data-driven business environment, machine learning (ML) is a powerful tool for gaining actionable insights, improving decision-making, and driving competitive advantage. This four-day workshop is designed for business professionals, analysts, and decision-makers who want to leverage ML for business intelligence (BI). Participants will gain practical knowledge of ML concepts, techniques, and applications relevant to business analytics, customer insights, risk management, and operational efficiency.

Topic 1 – Fundamentals of Machine Learning for Business Intelligence
Topic 2 – Advanced ML Techniques for Business Applications
Topic 3 – Deep Learning and Neural Networks for Business Intelligence
Topic 4 – Deployment, Ethics, and Future Trends in Machine Learning for Business

Duration: 4 days

MODULE 6: FOUNDATIONS OF PRODUCT DESIGN

The "Foundations of Product Design" module is designed to provide participants with a comprehensive understanding of the product design process. It emphasizes the importance of aligning design goals with business objectives and understanding market needs. The program includes practical exercises and real-world applications to ensure participants can effectively translate customer needs into technical specifications

Day 1: Foundations of Product Design
Topic 1 – Introduction to Product Design
Topic 2 – Identifying the Problem Statement
Topic 3 – Identifying Customer Needs
Topic 4 – Converting Ambiguous Statements into Technical Specifications
Day 2: Internal and External Analysis
Topic 5 – Concept Generation & Selection
Topic 6 – CAD and CAE
Topic 7 – Prototyping

Duration: 2 days

The Trainers

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MODULE 1: PROFESSIONAL BUSINESS PRESENTATION SKILLS

MS. AZHANNI MUHAMMAD

Azhanni Muhammad has over 20 years of experience in academic and corporate training. She earned her B.Ed. TESL in 1995 and an MSc in Corporate Communication in 2003 from Universiti Putra Malaysia. In 2008, she completed her MA in Communication Studies at Ohio University, USA, where she is currently pursuing a Ph.D. in Communication Studies with a focus on Organizational/Corporate Communication, specifically in Crisis Communication and Image Repair Strategy.

Her extensive training background includes work with diverse public and private sector clients, such as the Public Service Department of Brunei, Malaysia's Ministry of Defence, Kuala Lumpur City Hall, and major corporations including Panasonic, Daikin, Monier and many more.

MODULE 2: KNOWLEDGE-ORIENTED LEADERSHIP IN KNOWLEDGE MANAGEMENT PRACTICES AND INNOVATION

ASSOC. PROF. DR NORIZAH MOHD MUSTAMIL

Norizah Mohd Mustamil is an Associate Professor in the Department of Management and Marketing at Universiti Malaya. She earned her DBA from Curtin University and an MBA from Universiti Malaya. Her research, which spans strategic management, leadership, and human resource management, is highly interdisciplinary.

Associate Professor Dr Norizah has authored books and journal articles and has significant consultancy experience with organizations such as the Farmers' Organisation Authority (LPP) and PEMANDU. She was also the Director of the Project Management Centre and Associate Vice-Chancellor (Corporate Strategy) from December 2021 to December 2023. Her areas of expertise include business ethics, human resource management, and leadership.

MODULE 2: KNOWLEDGE-ORIENTED LEADERSHIP IN KNOWLEDGE MANAGEMENT PRACTICES AND INNOVATION

DR AZNI ZARINA TAHA

Dr. Azni Zarina Taha (PhD, Aston University) is the Executive Director (Bursar) of UMGiving at Universiti Malaya. With a PhD in strategy, an MBA from Universiti Malaya, and a BSc from the University of Missouri, she blends academic expertise with extensive consultancy experience.

She teaches corporate strategy and change management, applying both theory and insights from her consultancy work. Dr. Azni has delivered training for organizations like Panasonic Malaysia, the Malaysian Armed Forces, and Infineon Technologies.

Her consultancy experience spans diverse sectors, advising high-profile organizations such as KPDN, MATRADE, and KWAP, and working on projects like the Aerospace Industry 4.0 Readiness Index (AIR4S) and profiling mosques for the Islamic Tourism Centre.

MODULE 3: FINANCE FOR ENGINEERS

ASSOC. PROF. DR KOH HSIENG YANG ERIC

Eric H.Y. Koh is an Associate Professor in the Department of Finance with research interests in bank and risk management. He holds a PhD from The University of Nottingham, is a CFA charter holder, and is a CPA Australia member. His career spans external auditing and senior management roles in banking. In addition to teaching undergraduate and postgraduate courses, he facilitates professional training and serves on the Examination Committee of the Asian Institute of Chartered Bankers. His professional background includes external auditing and senior management roles in the banking sector, where he led business performance analysis and risk management projects.

Dr Eric has authored and co-authored several books and numerous peer-reviewed journal articles, contributing significantly to the fields of finance and risk management. His work reflects a deep integration of theoretical knowledge and practical experience, making him a valuable asset to both academia and the finance industry.

MODULE 4: INDUSTRY 4.0 - MACHINE LEARNING APPLICATION & AI

DR ELAYARAJA A/L ARUCHUNAN

Dr. Elayaraja Aruchunan is a renowned expert in ESG data science with over 18 years of experience in machine learning, big data analytics, and decision science. He holds a PhD from Curtin University, Australia, and currently serves as a Senior Lecturer at Universiti Malaya. Dr. Aruchunan specializes in developing innovative solutions for real-world challenges through advanced data science techniques, particularly in ESG analytics.

As an accredited HRD Corp trainer, he offers professional training in Python, data mining, machine learning, and big data, helping professionals bridge the gap between theory and practice. A passionate educator and researcher, Dr. Aruchunan has published extensively and collaborates internationally. He is also an advocate for STEM education and a member of prestigious societies such as IEEE and PERSAMA. Recognized by the Academy of Sciences Malaysia, he is a distinguished leader in his field.

MODULE 5: MACHINE LEARNING FOR BUSINESS INTELLIGENCE

PROFESSOR DR LOO CHU KIONG

Prof. Dr. Loo is a renowned expert in machine learning, explainable AI, and sustainable AI, with over 12 years of research experience at the Universiti Malaya. He has published more than 200 peer-reviewed papers in leading journals like IEEE Transactions on Neural Networks and Learning Systems. His research contributions in neuro-robotics and machine intelligence have made a significant impact in fields like digital healthcare and cognitive robotics.

Prof. Loo has received multiple prestigious awards, including the JSPS Fellowship (Japan) and the Georg Forster Fellowship (Germany). He is a founding member of UM spin-off company, UMCH Sdn. Bhd., specializing in AI-enabled healthcare solutions, and has filed 10 patents. Prof. Loo is recognized as one of Malaysia's top researchers, receiving the Malaysia Research Star Award 2019 and the Top Research Scientist Malaysia (TRSM) award 2020.

MODULE 6: FOUNDATIONS OF PRODUCT DESIGN

ASSOC. PROF. IR. DR MOHD SAYUTI AB KARIM

Associate Professor Ir. Dr. Sayuti is an expert in advanced manufacturing and product innovation at Universiti Malaya. With a PhD in Engineering Science, he has led numerous design and manufacturing projects, earning over 40 research publications and 10 patents. His expertise spans product design, machine learning, and simulation techniques such as FEA and CFD.

Dr. Sayuti is also the General Manager of Zecttron Sdn Bhd, a UM spin-off, driving innovation in the industry. A Chartered Engineer and registered professional engineer, he combines academic excellence with practical business and technical insights to foster innovation and growth.

Contact Us

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