



ENGINEERING

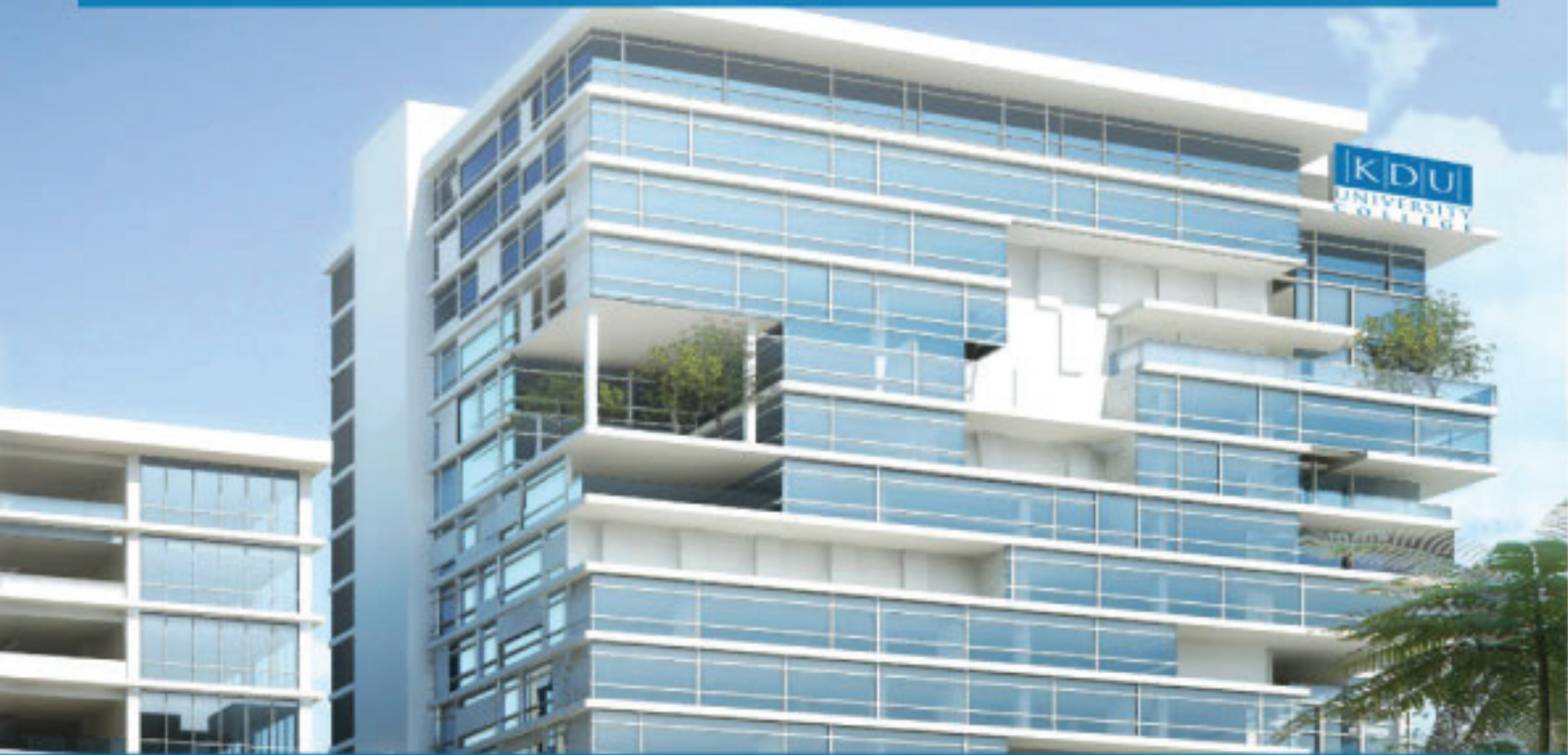
INNOVATE THE FUTURE

K|D|U
COLLEGE

ABOUT KDU

As a pioneer in private tertiary education in the region, KDU College sets itself apart by focusing on delivering quality programmes partnering with top universities around the world. With more than 48,000 alumni, KDU has built a strong presence in the region and continues to inspire its students to greater heights.

VISION - The premier learning organisation that sparks curiosity, inspires success and promotes responsibility.



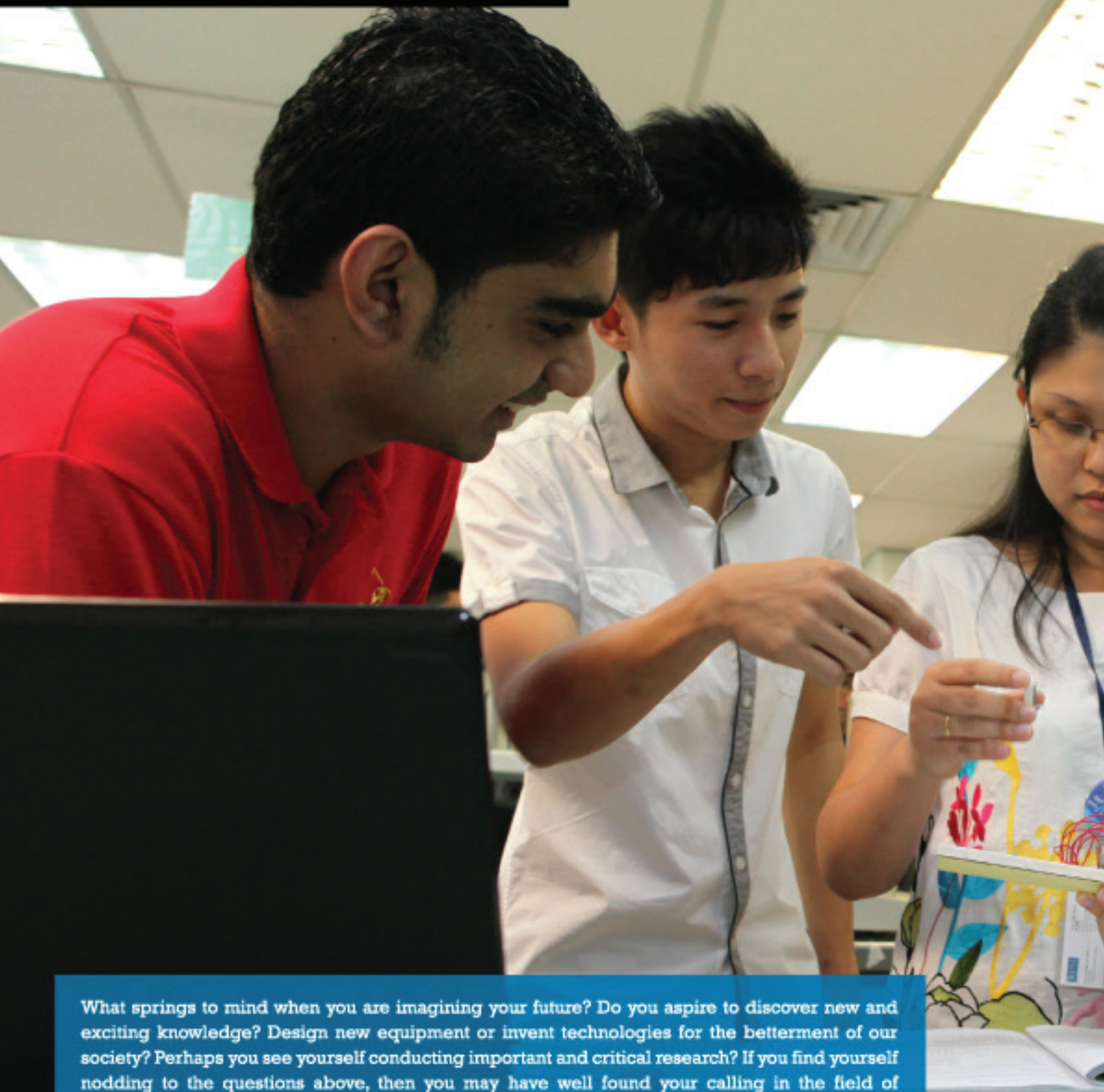
OUR PROMISE



“16 years in the engineering education business & we are still trying to improve ourselves every year. With our VLSI training advantage, all our graduates are recruited upon graduation by leading multinational companies”.

Dr. Yeap Gik Hong
Academic Department Head
Engineering Department

ENGINEERING



What springs to mind when you are imagining your future? Do you aspire to discover new and exciting knowledge? Design new equipment or invent technologies for the betterment of our society? Perhaps you see yourself conducting important and critical research? If you find yourself nodding to the questions above, then you may have well found your calling in the field of engineering.

As Malaysia strives towards a developed nation status, engineers have a key-role to play in enhancing the quality of life through the advancement of science and technology. With such a pivotal role to play, qualified and skilled engineers are in escalating demand and will remain to be throughout the world.

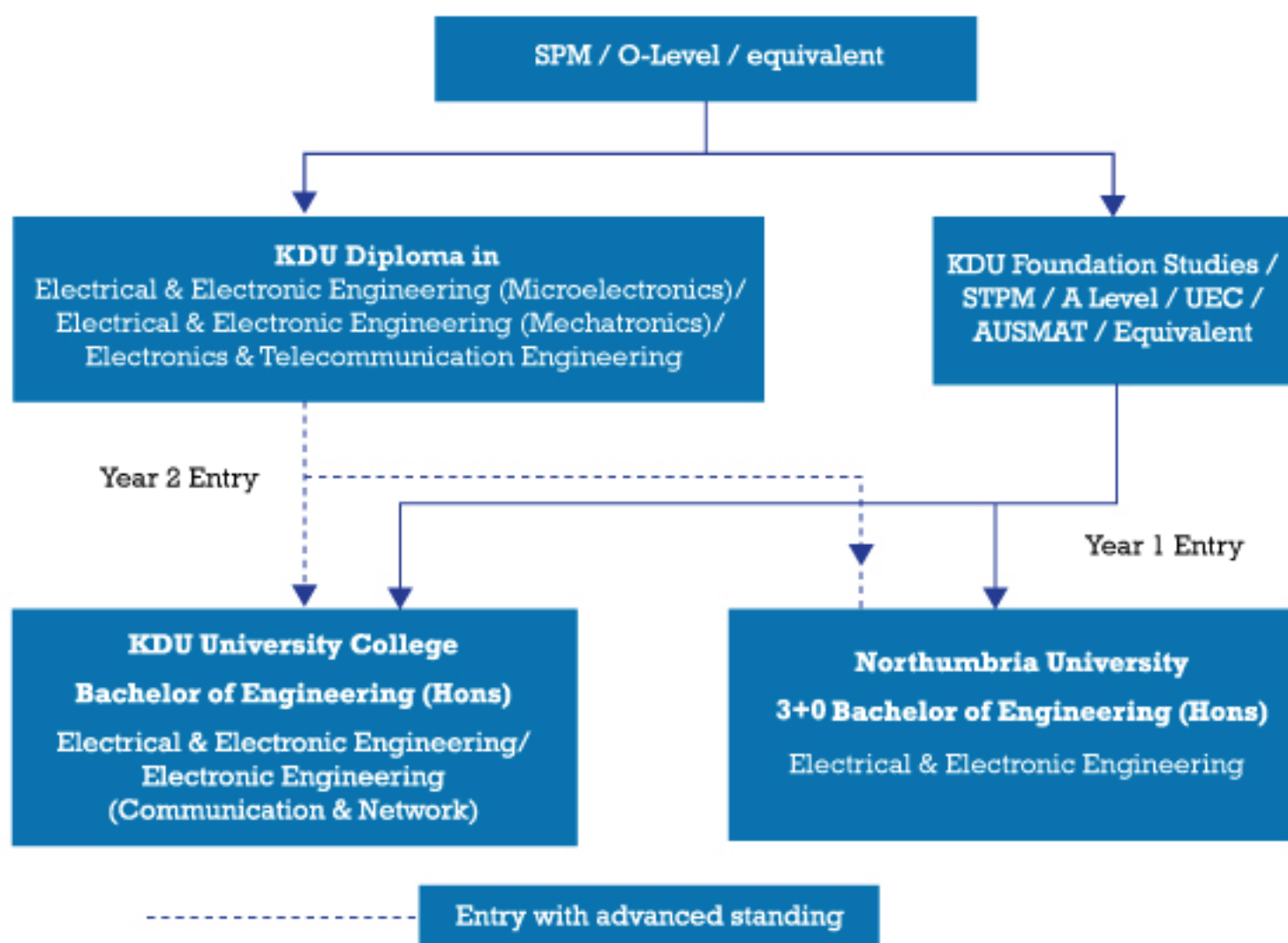


Career Options

- Product Engineer
- Process & Design Engineer
- Communication Network Planner
- Broadcast/Transmission Engineer
- Quality Control Engineer
- Technical Training Executive
- Technical/Project Manager

...and many more.

STUDY ROUTE



KDU believes that people should learn more from people and not just from books. Here at KDU, the lessons are learned but the people are celebrated for the inspiration they bring to each other.



Chan Wan Yee
Graduate of 2009

I have chosen KDU's Engineering Programme previously because I believed this course had a lot to offer, first from the subjects itself to it's location right in the middle of Georgetown which I find it quite convenient as I am just staying nearby. I continued with my degree after my diploma in Engineering as I was already used to the excellent classroom experience I have been receiving from the lecturers. With that I believe KDU is definitely a place to gather knowledge on ENGINEERING.



Lee De' Ken
Graduate of 2008

KDU College offered a degree that is recognized not only in Malaysia and Australia, but internationally as well due to its accreditation with the Washington accord. A recognized degree alone would not make a quality course hence the friendly and accommodating lecturers and staff was also a big factor in my decision.

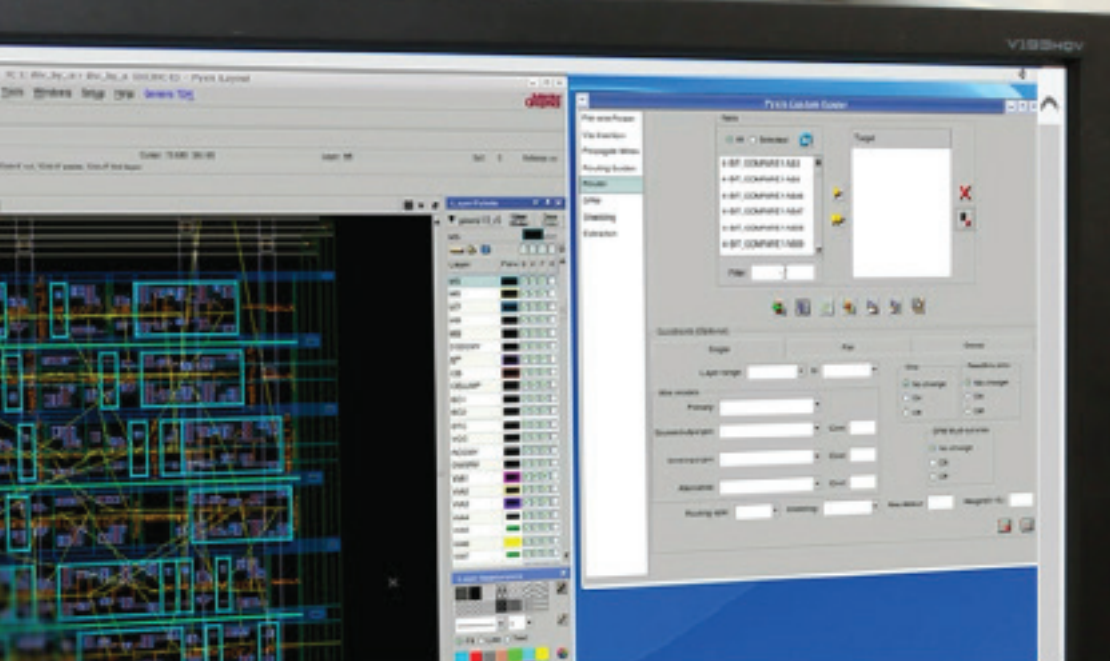
The college provides the means for a conducive studying environment with well maintained classrooms and engineering labs that had adequate equipment for all the engineering students. My programme also had excellent staff that consisted of diverse lecturers who are well-versed in their field and who were ever approachable.



Ng Keong Siong
Graduate of 2008

I chose KDU's Engineering Programme because of my interest. I've been thinking of creating/ inventing something that would be beneficial to the world. My studies at KDU definitely helped me to achieve that.

GET THE VLSI ADVANTAGE - USING THE LATEST INDUSTRY ADOPTED DESIGN SOFTWARE



What is VLSI in the First place?

Known as "Very Large Scale Integration", it is a field which involves the packing of large amounts of logic devices into Integrated Circuits or technically known as ICs. These VLSI circuits are used in your every day technological devices such as Computers, Cars, Digital Cameras, Mobile and Smart Phones, iPad.

How is it important?

It is an essential tool for future budding engineers who are looking to get ahead in the Silicon Valley race. In fact, majority of the semiconductor industry have placed it as an employment requirement which candidates will have to pass during a job interview.

Why do we have the edge in VLSI Training?

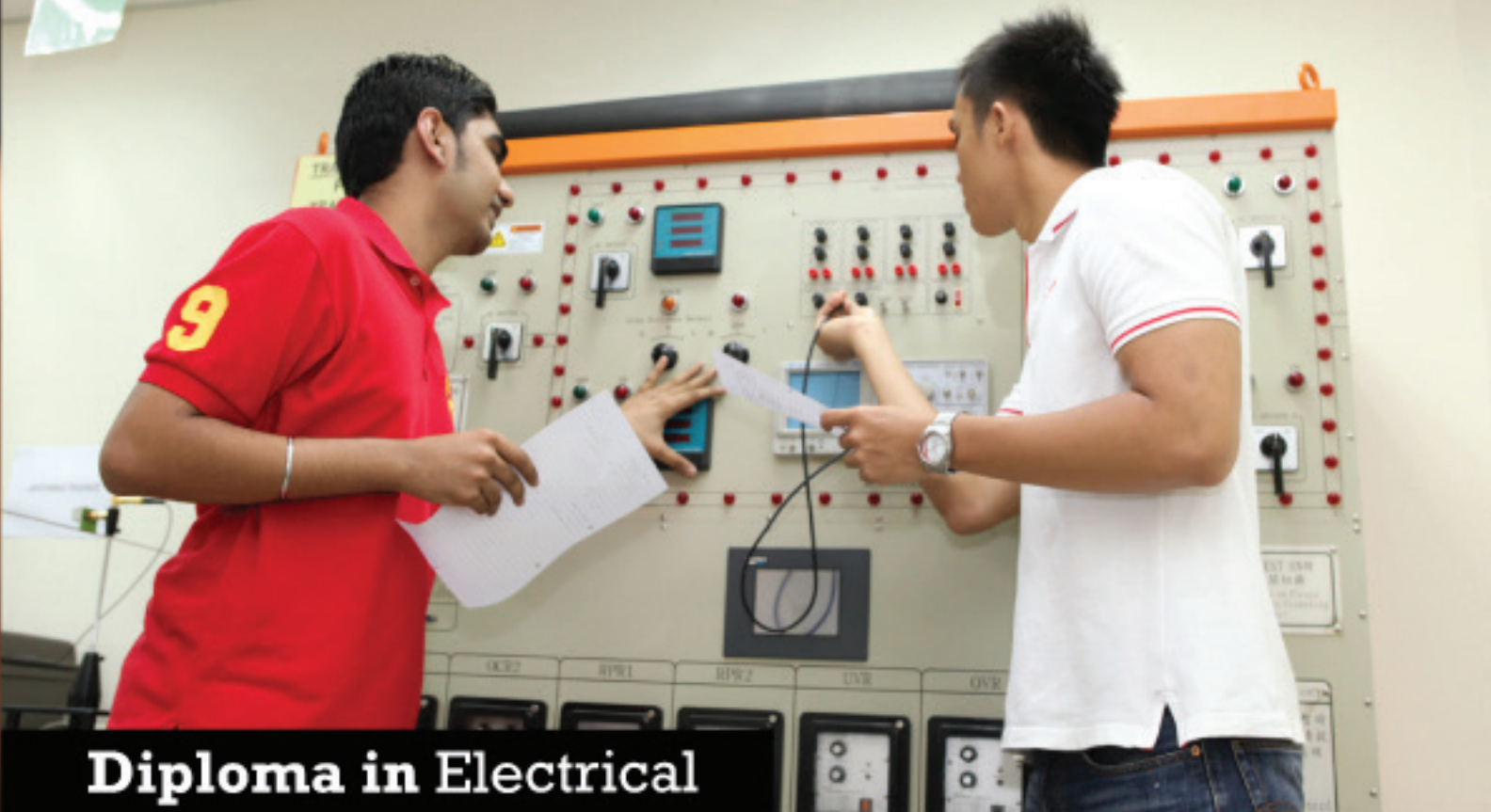
Our Diploma in Electrical & Electronic Engineering (Microelectronics) and 3+0 B.Eng (Hons) Electrical & Electronic Engineering programmes cover intensive training on the operation of the "Mentor Graphics" electronic design automation (EDA) tools. These tools provide complete solutions for IC Design to help engineers conquer design challenges in the increasingly complex world of IC Chip and board design.

How is it applied in the big world of semiconductor manufacturing?

It's integral in the design of Microprocessor and what it does is that it integrates all the sub systems in a Microprocessor into a single Integrated Circuit (ICs) with higher performance output and lower power consumptions.

How is this software special for KDU Penang Engineering graduates?

Mentor Graphics founded the education programme which provides colleges and universities with leading edge design tools for classroom instruction and academic research. Hence, our graduates will enter into industry proficient with the state-of-the-art tools and techniques. Furthermore, Mentor Graphics EDA software is a Tier-1 EDA software widely used by the industry which include but not limited to MIMOS Design Centre, Intel, Altera, Motorola, Silterra, Agilent, Avago, X-Fab and Spansion. This means that our graduates will have the advantage in securing top line engineering positions with established semiconductor R&D and manufacturing companies all over Malaysia and the world.



Diploma in Electrical & Electronic Engineering (Microelectronics)

JPT/BPP (A9885) 12/19

This course introduces you to the concepts of Physical Electronics, VLSI Technology, design and fabrication of miniaturized electronic devices and systems designed for the generation, transmission and distribution of electricity. Specifically designed to integrate two major areas, this comprehensive programme provides you with more flexibility in choosing or tailoring your career path.

| Year 1 | Year 2 |
|--|---|
| <ul style="list-style-type: none"> • Engineering Mathematics I • Engineering Mathematics II • Fundamentals of Computer Systems • Semiconductor Devices & Applications • Electric Circuits I • Basic Programming • Electric Circuits II • Microcontroller System Design and Applications • Analogue Electronics • Digital Electronics • Personal Development & Leadership skills | <ul style="list-style-type: none"> • Engineering Mathematics III • Introduction to Inventive Problem Solving in Engineering • Very Large Scale Integration • Technopreneurship • Electric Machines • Power Electronics • Advanced Computer Programming • Electric Power Systems Fundamentals • Industrial Training |
| | Year 3 |
| | <ul style="list-style-type: none"> • Wafer Fabrication and IC Packaging • Project Lab |

MPU Subjects

Local

- Pengajian Malaysia II
- Oral Communication II/ Bahasa Kebangsaan A
- Ethics and Moral II
- Holistic Personal Development

Foreign

- Bahasa Melayu Komunikasi I
- Oral Communication II
- Ethics and Moral II
- Holistic Personal Development

Duration : 2.5 years
Offered at : KDU PENANG

Diploma in Electrical & Electronic Engineering (Mechatronics)

JPT/BPP (A0284) 04/18

Student will be introduced to the concepts of Physical Electronics, Engineering Materials, Mechatronics System Design, Applied Pneumatics and Hydraulics, Computer Aided Design/Drafting and Robotic Technology.

This comprehensive programme provides the students with the flexibility to choose or tailor their career paths and endeavors.

This diploma offers career prospects in the areas of research and development (R&D), design and manufacturing, technical management and marketing within the field of engineering.

| Year 1 | Year 2 |
|--|--|
| <ul style="list-style-type: none"> • Engineering Mathematics I • Engineering Mathematics II • Fundamentals of Computer Systems • Semiconductor Devices & Applications • Electric Circuits I • Basic Programming • Electric Circuits II • Microcontroller System Design and Applications • Analogue Electronics • Digital Electronics • Personal Development & Leadership Skills | <ul style="list-style-type: none"> • Engineering Mathematics III • Introduction to Inventive Problem Solving in Engineering • Mechatronics System Design • Technopreneurship • Engineering Materials • Computer Aided Design/Drafting • Instrumentation and Control • Applied Pneumatics and Hydraulics • Industrial Training |
| | Year 3 |
| | <ul style="list-style-type: none"> • Robotic Technology • Project Lab |

MPU Subjects

Local

- Pengajian Malaysia II
- Oral Communication II/ Bahasa Kebangsaan A
- Ethics and Moral II
- Holistic Personal Development

Foreign

- Bahasa Melayu Komunikasi I
- Oral Communication II
- Ethics and Moral II
- Holistic Personal Development

Duration : 2.5 years

Offered at : KDU PENANG

Why choose an engineering diploma from KDU?

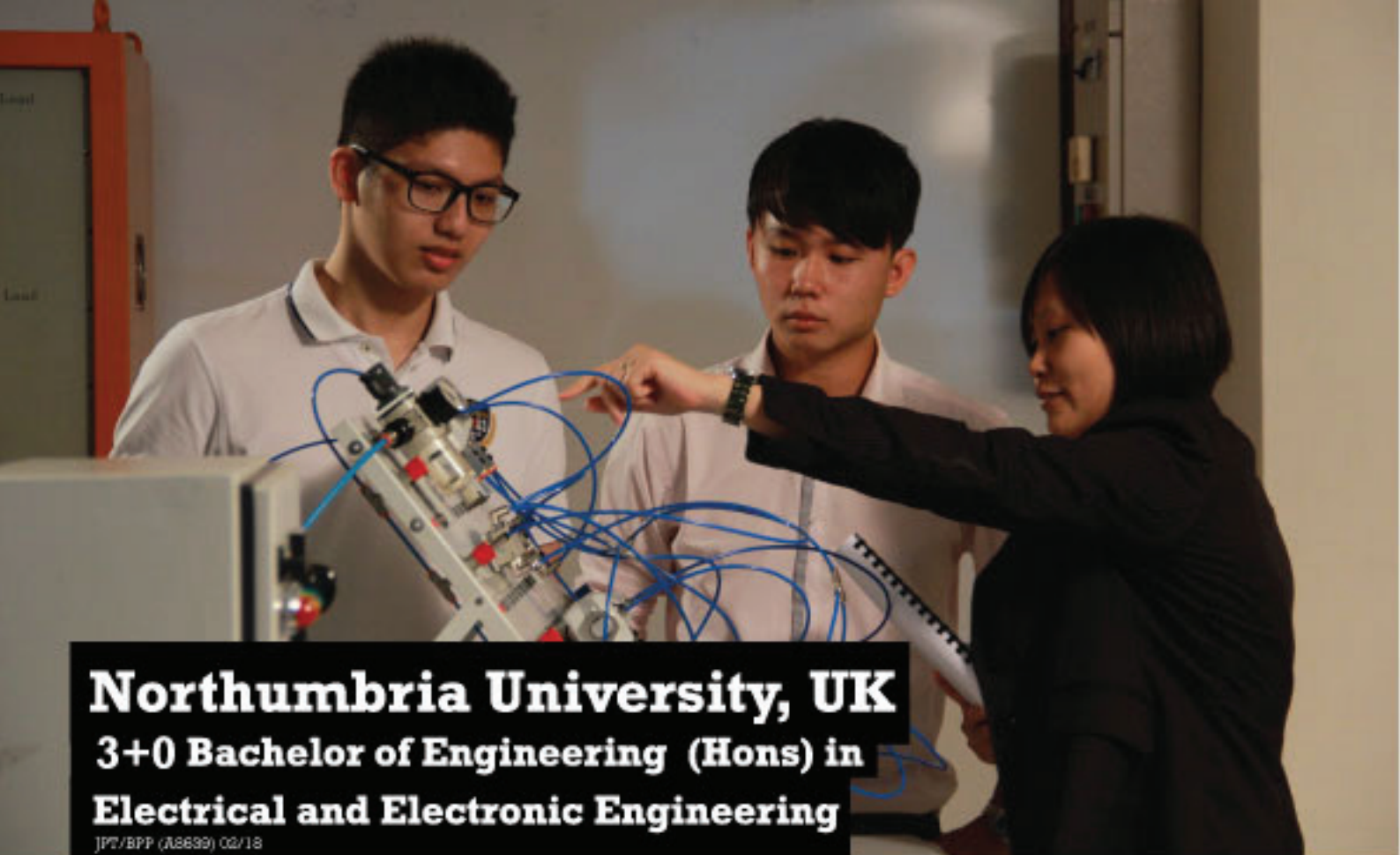
- **Superior employability advantage with VLSI.** Get employed ahead of the rest with our Very Large Scale Integration (VLSI) training facility which features the latest Mentor Graphics software being used in the IC industry.
- **Industry based syllabus by industry experts.** Be workforce ready through our top line syllabus which is developed from the feedback of industry experts.
- **Latest Simulation facilities.** Get cultured early to your future career workplace through our topline industry simulated labs such as the NI LabVIEW Academy / VLSI Lab, Electrical Power, Electronics and Computer Aided Design / Communication Lab.
- **Be a Global Graduate.** Our diploma programmes are transferable to major universities in Australia and UK.
- **Industry ready.** At least 90% of our graduates are employed or continuing further education within 6 months after graduation.



Northumbria University, in Newcastle Upon Tyne, is an expanding multicultural learning community, with excellent links with further and higher education, industry and commerce throughout the UK, Europe and beyond. Renowned for the excellence of its teaching, as well as for preparing students for the world of work. Northumbria also provides research opportunities for professional reflective practice.

Why choose an engineering degree from KDU?

- **Superior employability advantage with VLSI.** Get employed ahead of the rest with our Very Large Scale Integration (VLSI) training facility which features the latest Mentor Graphics software being used in the IC industry.
- **Get a fully accredited Degree Program in only 3 years.** Get a 1 year head start compared to your peers with our UK-Northumbria University program that is accredited by the MQA and recognised by JPA.
- **Industry ready & recognized.** We provide frequent technical visits to expose you to actual industrial settings. At least 90% of our graduates are employed or continuing further education within 6 months after graduation.
- **Industry based syllabus by industry experts.** The engineering degree are supported by industry partners and reviewed by our Advisory Board Panel comprising of CREST, National Instruments, Dream Catcher, Inno Planet, USM, UM and UNITEN.



Northumbria University, UK

3+0 Bachelor of Engineering (Hons) in Electrical and Electronic Engineering

JPT/BPP (A8699) 02/18

With an integrated approach to the combination of academic know-how, the design applications, marketing and business skills applications of this electrical and electronic engineering degree will prepare you for the challenges of the industry. This excellent programme also incorporates an industrial experience and specialization in the final year to give you the edge in your career.

//Year 1

- Computer Programming
- Digital Electronics & Communications
- Electrical & Electronic Principles
- Research, Analysis and Presentation
- Engineering Mathematics
- Fundamentals of Energy Systems

//Year 2

- Engineering Product Development
- Communication Systems
- Analogue Electronics & Instrumentation
- Advanced Engineering Mathematics
- C Programming & Digital Systems
- Power, Machines & Renewable Energy

//Year 3

- Individual Engineering Project
- Design & Manufacturing Analysis
- Digital Signal Processing Systems

Electronics Pathway*

- Very Large Scale Integration (VLSI)
- Digital System Design & Implementation

Electrical Pathway*

- Power Systems
- Industrial Instrumentation & Modern Control Systems

* Select either Electronics Pathway or Electrical Pathway
* Minimum of 5 students required to be offered

MPU Subjects

Local

- Hubungan Etnik
- TITAS
- Bahasa Kebangsaan A / IELTS Preparatory Class
- Ethics & Moral III
- Holistic Professional Development

Foreign

- Bahasa Melayu Komunikasi II
- Pengajian Malaysia III
- IELTS Preparatory Class
- Ethics and Moral III
- Holistic Professional Development

Duration : 3 years

Location : KDU PENANG

Note: The accreditation of all 3+0 BEng (Hons) programmes are done by Malaysian Qualification Agency (MQA) and not Engineering Accreditation Council (EAC). Hence, the 3+0 BEng (Hons) programmes are not recognized by Board of Engineers Malaysia (BEM). In order to register as Graduate Engineer with BEM, graduates from the 3+0 programmes have to top up their study with a master degree by instruction in the relevant field from accredited university.



Northumbria University, UK

3+0 Bachelor of Engineering (Hons) in Mechanical Engineering

JPT/BPP (PA4867)

If you are analytical and creative, interested in design, technology, construction and management and want to help develop sustainable, cost effective solutions and products, this degree will equip you with the practical skills and expertise required for a career in mechanical engineering. Mechanical Engineering is the most wide-ranging of the engineering disciplines and is applicable to industry, government, environment and society.

//Year 1

- Introductory Mechanics
- Energy and the Environment
- Design
- Materials and Manufacture
- Engineering Skills in Experimentation & Presentation
- Engineering Mathematics

//Year 2

- Applied Mechanics
- Energy Conversion Systems
- Computer Modelling and Design
- Manufacturing Technology
- Engineering Economics & Professional Skills
- Further Engineering Mathematics

//Year 3

- Advanced Mechanics
- Energy Management and Efficiency
- Investigative Project
- Design for "X"

ELECTIVES (CHOOSE ONE)*

- Digital Product Design and Analysis
- Advanced Manufacturing Technology
- Renewable Energy Technology

* Minimum of 8 students required to be offered

MPU Subjects

Local

- Hubungan Etnik
- TITAS
- Bahasa Kebangsaan A / IELTS Preparatory Class
- Ethics & Moral III
- Holistic Professional Development

Foreign

- Bahasa Melayu Komunikasi II
- Pengajian Malaysia III
- IELTS Preparatory Class
- Ethics and Moral III
- Holistic Professional Development

Duration : 3 years

Location : KDU PENANG

Note: The accreditation of all 3+0 BEng (Hons) programmes are done by Malaysian Qualification Agency (MQA) and not Engineering Accreditation Council (EAC). Hence, the 3+0 BEng (Hons) programmes are not recognized by Board of Engineers Malaysia (BEM). In order to register as Graduate Engineer with BEM, graduates from the 3+0 programmes have to top up their study with a master degree by instruction in the relevant field from accredited university.

FACILITIES

- // Business Lounge
- // Carême
 - Pastry & Bakery Kitchen
- // Cafeteria
- // Communication Lab
- // Computer labs and iMac labs
- // Electrical Power Lab
- // Electronics Lab
- // Escoffier
 - Garde Manger & Butchery Kitchen
- // Fully-equipped science labs
- // Games Design Lab
- // Gymnasium
- // Library
 - Electronic book databases
 - Electronic journal databases
 - Specialized electronic databases
- // KDU-Holiday Inn Hospitality Training Suite
- // Pastry Kitchens
 - Fully-equipped hotel specification kitchen
 - State-of-the-art equipment
- // Service Restaurants
 - Bon Appétit - Fine Dining
- // Spin Doctor Lab
- // Surau
- // VLSI Lab
- // Wi-Fi enabled campus





BUSINESS • Cert. in Financial Planning (CFP) • Dip. in Business • Keele University
3+0 B. Arts (Hons) Business Management (Double Major)

MASS COMMUNICATION • Dip. in Mass Communication • Northumbria
University 3+0 BSc. (Hons) Communication and Public Relations

COMPUTING • Cert. in Information Technology • Dip. in Computer Studies • Dip. in
Games Technology • Northumbria University 3+0 BSc. (Hons) in Computing Studies
• University of London 3+0 Bsc. (Hons) in Creative Computing

DESIGN • Diploma in Creative Media Design • Diploma in Interior Design

ENGINEERING • Dip. in Electrical & Electronic Engineering (Microelectronics)
• Dip. in Electrical & Electronic Engineering (Mechatronics) • Northumbria
University 3+0 BEng. (Hons) in Electrical & Electronic Engineering

HOSPITALITY, TOURISM & CULINARY ARTS • Dip. in Hotel Management • IMI
University Centre Dip. in International Hotel & Tourism Management • IMI
University Centre Dip. in Professional Chef Training • IMI University Centre 3+0 B.A.
in International Hotel & Tourism Management

LANGUAGE • Intensive English Language • IELTS Preparatory Course • CIDTT •
Intensive English Language Enhancement Programme (IELEP) • Holiday English
Language Course (HELIC) • Corporate Training Programmes • Better English for
Better Business Opportunity Training Programmes • Creative Tips and Tricks in
Teaching English Workshops

PRE-UNIVERSITY • OCE A-Level



MyQuest Audit 2010/2011
MyQuest Audit 2012/2013
By the Ministry of Education, Malaysia

KDU College (Pg) Sdn. Bhd. DK 210 (P)
By Paramount Education

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Tel : 04-2386368
Fax : 04-2280054/0362
Email: best@kdupg.edu.my

KDU Ipoh Recruitment Centre
1st Floor, No.3, Jalan Dato Tahwil Azar,
30300 Ipoh, Perak.
Tel : 05-241 4211
Fax : 05-241 4211
Email : best@kdupg.edu.my

Website: [http:// www.kdupg.edu.my](http://www.kdupg.edu.my)

Other members include:

