School of Graduate Studies

Industrial Doctorate (IndD)
What is an AeU’s Industrial Doctorate (IndD)?

- The AeU IndD is a professional doctorate, a industry-oriented alternative to a traditional PhD;
- Whilst equivalent in status and challenges to a PhD, it is more appropriate for those pursuing professional rather than academic careers.
- MQF Level 8
For whom?

• It is specifically designed for working adults whose contributions to the industry are of significance for the advancement of knowledge and skills to warrant for a doctorate qualification;

• The programme is more suited for candidates in the industrial and engineering field, technologists and scientists.
What is the difference between academic doctorates (e.g. PhD) and professional doctorates (DBA, IndD)?

• All doctorates from AeU confer the title “Dr” on successful candidate.
• A PhD is a fully research based programme with no taught elements and is usually academic in nature. The final product of the PhD research is a *thesis by dissertation*.
• A professional doctorate (e.g. DBA, IndD) is a programme of research, scholarship and advanced study which enables candidate to make *significant contribution to knowledge and practice in their professional context*. In doing so, a candidate may also contribute more generally to scholarship within the discipline or field study. The final product of IndD is a *dissertation by portfolio*.
What are the USPs for AeU’s IndD?

• Most local universities offer Industrial Doctorate to candidates whose research is a work (industrial)-based activity that culminates as a thesis by dissertation, whereas AeU’s IndD is also a work(industrial)-based doctorate but culminates as a dissertation by portfolio.
• Flexible, affordable and quality doctorate.
• No proposal is necessary at the point of entry.
• Candidate will be guided to prepare research proposal and the conduct of research by coursework, workshops, colloquia and clinics;
• Supervisors with both industrial and academic experiences.
• Fastest growing doctoral centre in Malaysia, over 400 students
What are IndD learning outcomes?

• To create and interpret new knowledge, through original research or other advanced scholarship;
• To demonstrate a systematic acquisition and understanding of a substantive body of knowledge at the forefront of professional practice;
• To conceptualise, design and implement a project for the generation of new knowledge, applications and problem solving; and
• To apply research techniques for professional enquiries
Entry qualifications for IndD?

- Possess a recognised Masters Degree in relevant fields OR
- Other equivalent qualifications recognized by AeU Senate.
• Normally 4 years as part-time mode
Compulsory Audit Courses

• Research Methodology 1
• Research Methodology 2

Candidates must pass both subjects.

Elective Courses

• Business Strategy and Policy
• Strategic Marketing
• Other elective courses approved by Senate
What is dissertation by portfolio?

- IndD dissertation by portfolio contains: (i) a portfolio consisting a collection of items, and (ii) a dissertation or a linking paper of not exceeding 60K words.
The Portfolio

• The Portfolio normally comprises of the periodic reports; scientific papers and articles written/presented by the candidate; reports on research project or projects completed during the period of study; and other documents considered to support the submission (e.g. project plans, financial plans, staff appraisals, etc - in other words, any evidence that supports the candidate's case.
The Dissertation (not exceeding 60K words, excluding appendices)

• The dissertation is the linking paper that will create coherence in the portfolio.

• Other possibilities to create coherence include short linking pieces between main items, some diagrammatic representation, development of themes through different items, or some combinations of these.

• Thus, the academic rigour of the portfolio is largely dependent on its structure and dissertation (linking paper).
Example of a portfolio:

- The IndD researcher might work within different paradigms or in different disciplines and so the research is likely to be drawn from a broad range of possible areas.
- The strength of the linking paper lies in the underpinning theory and/or hypotheses.
Specific Example of a Dissertation by Portfolio in ICT Application:

I. The portfolio comprises: 1 paper on Bioinformatics, 1 paper on eLearning, 1 paper on Precision agriculture and 1 paper on Cyberspace Security

II. Choices of the linking paper:
   i. “ICT as enabler: Applications in Different Domains”
   ii. “Innovation Cross-Fields and Its Business Impact”
   iii. “Creating the ICT Sector for the Innovation Economy”

Or more specific on the technology,
   i. “Security Technology Cross-Fields”
   ii. “Wireless Sensor Technology Cross-Fields”
   iii. “Random Number Generator for All Domains”

Then, to consider “what is the underlying theory and the hypotheses”
## Timeline for IndD
### (Optimum Period: 4 Years)

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<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
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<tbody>
<tr>
<td><strong>Example 2012</strong></td>
<td><strong>Example 2013</strong></td>
<td><strong>Example 2014</strong></td>
<td><strong>Example 2015</strong></td>
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<td>4. Prepare Three to Four (3-4) Portfolio Papers</td>
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<td>20. Finalise Thesis</td>
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**Note:** Assuming each academic year has three semesters: January, May and September semesters
Examination and Viva Voce

• Submission of 3-month notice for submitting thesis by portfolio
• Examination: 2 external and 1 internal examiner(s)
What is an acceptable IndD thesis by portfolio?

• Reflects international standards of academic rigour;
• Is oriented to applied research in the specified field; and
• Makes a contribution to the profession and/or professional practice.
What are the criteria, against which the IndD thesis by portfolio is to be examined, include:

- completeness and quality of the portfolio
- significance of the research to the practice in the specified field, and the clarity with which it is stated;
- competence in identifying and reviewing relevant literature(s);
- adequacy of developing research question(s);
- quality of basic research design(s): plausibility, parsimony and elegance;
- appropriateness of identification, collection and analysis of relevant evidences;
- expertise with which findings are interpreted in terms of theory, implications for policy and practice, and needs for further research; and
- quality and clarity of writing and presentation for relevant audiences.

The candidate must pass the dissertation (or linking paper) in order to be awarded the Industrial Doctorate.
THANK YOU