

H9IBP: Industry Based Research Project

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| Module Code: | H9IBP |
| Long Title | Industry Based Research Project APPROVED |
| Title | Industry Based Research Project |
| Module Level: | LEVEL 9 |
| EQF Level: | 7 |
| EHEA Level: | Second Cycle |
| Credits: | 25 |
| Module Coordinator: | CRISTINA HAVA MUNTEAN |
| Module Author: | CRISTINA HAVA MUNTEAN |
| Departments: | School of Computing |
| Specifications of the qualifications and experience required of staff | |
| Learning Outcomes | |
| <i>On successful completion of this module the learner will be able to:</i> | |
| # | Learning Outcome Description |
| LO1 | Analyse, select and implement appropriate research methods and techniques |
| LO2 | Research and critically analyse the state of the art of a problem domain |
| LO3 | Propose, architect and implement an ICT solution related to the programme area |
| LO4 | Evaluate the solution based on identified measures |
| LO5 | Investigate potential future research possibilities |
| LO6 | Present and defend the research findings through a viva, artefact/product demo and research paper style report. |
| Dependencies | |
| Module Recommendations | |
| No recommendations listed | |
| Co-requisite Modules | |
| No Co-requisite modules listed | |
| Entry requirements | |

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| Module Content & Assessment | | | |
|--|----------------|---------------------------|-----------|
| Indicative Content | | | |
| Literature Review The literature review should demonstrate evidence of independent research critically analysing the potential of an application / idea and provide insights into how it can be implemented and evaluated. This may build upon the work conducted in Semester 2 as part of Research in Computing module, but will have to be updated and revised based on feedback from supervisors. | | | |
| Project Specifications The project specifications describe the research background that includes the research question and definition of research variables. | | | |
| Solution Development Learners develop a solution that addresses the research question. This may involve the development of an application prototype, the design of an algorithm, the implementation of an innovative service or component of a system. | | | |
| Evaluation A comprehensive evaluation must be conducted by each learner using multiple strategies, example; an algorithm may be benchmarked by performance specific metrics whilst an internet application or mobile application may be evaluated using suitable usability testing techniques. Statistical tools should be used to critically evaluate and assess the experimental research outputs and levels of significance. | | | |
| Conclusion and Future Work Learners must arrive at a conclusion from their research question as defined within the position paper. A detailed future work section must be included showing the learners understanding of their own research conducted | | | |
| Viva The viva shall involve a presentation of the research work carried out and a demonstration of the final results to at least two academic examiners. A demo of the developed artefact/product will be required. | | | |
| Assessment Breakdown | | | % |
| Coursework | | | 100.00% |
| Assessments | | | |
| Full Time | | | |
| Coursework | | | |
| Assessment Type: | Written Report | % of total: | 90 |
| Assessment Date: | n/a | Outcome addressed: | 1,2,3,4,5 |
| Non-Marked: | No | | |
| Assessment Description: A research paper style report that describes the individual research project specification and application development as well as the testing results is submitted. All students are marked based on the written report using the following schema: Literature review 10%, Artefact/ Project Development 30%, Artefact/ Product evaluation, conclusion and future work 25%, Report presentation, referencing and references 5%, Configuration manual 10%, Viva 10% | | | |
| Assessment Type: | Project (0050) | % of total: | 10 |
| Assessment Date: | n/a | Outcome addressed: | 6 |
| Non-Marked: | No | | |
| Assessment Description: Viva - This shall involve a presentation of the research work carried out and a demonstration of the final results to at least two academic examiners. A demo of the developed artefact/product will be required during the viva. | | | |
| No End of Module Assessment | | | |
| No Workplace Assessment | | | |
| Reassessment Requirement | | | |
| Coursework Only <i>This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination.</i> | | | |

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| Module Workload | | | | |
|--------------------------------------|------------------------------------|-------|-------------------|---------------------------------|
| Module Target Workload Hours 0 Hours | | | | |
| Workload: Full Time | | | | |
| Workload Type | Workload Description | Hours | Frequency | Average Weekly Learner Workload |
| Lecturer Supervised Learning | Supervision: circa 1 hour per week | 1 | Per 15 week block | 0.07 |
| Independent Learning Time | No Description | 41 | Per 15 week block | 2.73 |
| Total Weekly Contact Hours | | | | 0.07 |
| Workload: Part Time | | | | |
| Workload Type | Workload Description | Hours | Frequency | Average Weekly Learner Workload |
| Lecturer Supervised Learning | Supervision circa 1 hour per week | 1 | Per 15 week block | 0.07 |
| Independent Learning Time | No Description | 41 | Per 15 week block | 2.73 |
| Total Weekly Contact Hours | | | | 0.07 |

| Module Resources | |
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| Recommended Book Resources | |
| <p>Zobel, J.. (2004), Writing for computer science., 2nd Edition. Springer, Berlin.</p> <p>Berndtsson, M.. (2008), Thesis projects: a guide for learners in computer science and information systems, Springer, London.</p> | |
| This module does not have any article/paper resources | |
| Other Resources | |
| <p>[website], (Prof Alan Bundy, University of Edinburgh). How to Write an Informatics Paper, http://homepages.inf.ed.ac.uk/bundy/how-tos/writingGuide.html</p> <p>[website], IEE Transactions on Mobile Computing, http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=7755</p> <p>[website], IEEE Transactions on Communications, http://host.comsoc.org/transcom/home.html</p> | |
| Discussion Note: | |