Faculty of Science of Technology

Department of Computer Science

Individual Projects

CST3990

Spring Term, 2024-25

Module Leader Dr Can Başkent

Online location of handbook This handbook can also be accessed via My Learning

Other formats available This handbook is available in a large print format. If you would like a large print copy or have other requirements for the handbook, please contact the Disability Support Service .

Disclaimer The material in this handbook is as accurate as possible at the date of production. You will be notified of any minor changes promptly. If there are any major changes to the module you will be consulted prior to the changes being confirmed. Please check the version number on the front page of this handbook to ensure that you are using the most accurate information.

Other documents Your module handbook should be read and used alongside your programme handbook and the information available to all students on My Learning and MyMDX including the Academic Regulations. Your programme handbook can be found on the My Learning programme page for your programme.

Version 2.1. February 12, 2025.

Contents

1 Welcome

An individual project is a valuable opportunity to put together your knowledge you have accumulated in your studies so far. It will produce a significant piece of work, probably the largest you have ever done by yourself. Whichever path you choose after graduation, post- graduate study, research, industry or public sector, your project work will help you to get jobs and advance your career. For this reason, it is a standard talking point in job interviews and is possibly the most important single module you will take during your degree.

Your approach to project work must exhibit an appropriate degree of professionalism, including ethical and legal principles, and business techniques, and not merely the pure application of computing science and technology.

Your engagement in project work essentially involves a significant degree of independence: you have considerable control over the precise content of your project work, and the tools you choose to develop a solution. You will need to accept responsibility for planning and executing your work.

But having said all this, it remains that by the time you start your project, you will have already acquired skills in using most if not all the tools that you will need in your project including analysis and design and programming skills. In addition, you may have had practice in using these tools in the group project development module. Equally, you may find that you need to master new tools and/or develop various skills appropriate to the tasks in hand.

The core of your project may involve software engineering including requirements specification, analysis and design, and implementation and testing of a software artefact (e.g. a program). This format does not preclude doing research; it is a question of emphasis as long as the core of the project involves software development that is relevant to the title of the programme being studied.

It is likely that you will have started to think about areas of project work of interest to you well before the start of the individual project module. By the start of your third year of studies on the programme, some issues, problems of interest, or particular aspects of the subject material in some of your taught modules might lead you to want to work on a specific topic. You may have engaged in group project work and you will have been assigned, or have chosen, a particular role as a team member within the project activity.

You may have learned about project management and have reflected upon the relevance of several general, non-technical issues that might bear not only on developments in the group project but are relevant to your own individual project. These considerations should help you define how your intended project has a role in a particular organisation, any ethical issues that might arise from the implementation of your system, and so on.

In addition, you will have learned the basics of how to present the results of a complex

technical system in such a way that the key ideas are communicated effectively to a variety of audiences using a variety of media.

The relationship with your supervisor is of critical importance, particularly in the early stages of defining problems and choosing problem-solving methodologies. Uniquely, project modules provide students continuing close contact with teaching staff, all of whom have considerable research and/or industrial experience.

Project supervisors have a nominal time allowance for one-to-one meetings with each project student. It is up to you, the student, to request these meetings and make the best possible use of them. Students are required to keep a written record of these meetings.

Your supervisor will certainly have an interest in your chosen project area, although he or she may not have specialised experience in some aspects of your project execution. Supervisors will help you to identify possible additional skills, knowledge and understanding required at later stages of the project. But do not expect supervisors to provide in depth knowledge on all aspects of your project or debug your software or evaluate your test results.

Module leader is there to coordinate the module and provide a unified and uniform approach.

Your project may need an approval from the departmental committee for research ethics. Your supervisor will be able to guide you through the ethics criteria for research. If you need an ethics approval, you cannot carry out your research before obtaining the approval. For this you may need to use Middlesex Online Research Ethics (MORE) system which provides information and guidance: .

Finally, students must see it as an opportunity to work and show their own work. A project is a wonderful way to connect your past work and knowledge to your future career. Make the best of it!

2 Module Teaching Team

Module Leader Dr Can Başkent

Office Number T131

Email c.baskent@mdx.ac.uk

Office Hours Wednesdays 10.00 – 12.00, T131 (Town Hall). Or over Zoom.

Each student will be assigned a supervisor – a member of staff. Your first point of contact should be your supervisor regarding anything about the module. The role of the module leader is to coordinate the module and provide a safe and fair learning environment for all.

I have put together FAQs for students (and also for supervisors) on MyLearning page of the module. Please familiarise yourselves with it. It should be your first point of inquiry, if you have any questions or concerns.)

Students must familiarise themselves with the Email Etiquette available on myLearning in order to learn how to communicate within an academic environment by email.

And, it is Dr. Başkent, not Dr. Can.

3 Communication with the Teaching Team

It is essential that you have access and regularly check your Middlesex email address. Your module leader will use that address to send announcements.

While you are working on your project, you are expected to have one-to-one meetings with your supervisor. You can discuss with your supervisor which platform you would like to use for this purpose: Zoom, Microsoft Teams, Skype etc., or you can have a face-to-face meeting.

The module leader will send reminders and updates using the virtual learning environment myMDX. This communication will arrive at your Middlesex email address. It is therefore imperative to have access to your Middlesex email account and check it regularly.

The module leader is likely to send urgent and/or individual messages about the module to you by email, so it is important that you read your University email regularly. Your module leader cannot answer emails arriving from non-Middlesex email addresses. This is to protect your privacy.

4 Module Overview

4.1 Aims

The primary aim of this module is to give the individual students the opportunity to demonstrate how effectively they have consolidated their skills, knowledge, and experience from other modules by means of an individual project. The project must incorporate a solution to a computer scientific or IT problem or to a theoretical research problem relevant to the computer science or IT discipline.

4.2 Learning Outcomes

Knowledge On successful completion of this module, the student will be able to:

1. Apply and integrate a range of computer science or information systems techniques to the solution of a specific and substantial problem, and recognise the professional, legal and ethical issues involved.
2. Demonstrate a comprehensive and detailed understanding of professional standards and the life-cycle of the object of your work (product, process or application), and show a critical appreciation of the selection of the tools used in its development.

Skills This module will call for the successful student to demonstrate that they can:

1. Address a complex problem from a critical viewpoint, demonstrate critical evaluation, improve their writing and communication skills using technical proficiency in English language in order to have effective documentation for the project report.
2. Reflect on the process of learning and personal development.
3. Demonstrate creative thinking competencies – the ability to be original or inventive.
4. Articulate a project into clear and concise objectives, and relate it to a broader literature.

4.3 Syllabus

This module will be co-taught together with our LET team. We will occasionally also have guest lecturers.

Our joint syllabus will be as follows.

- Research methods
- Actors involved in a project: roles of the supervisor, student and the module leader
- Developing project ideas
- Carrying out literature review
- Paraphrasing, citations, referencing
- Academic writing
- Dissertation structure and organisation
- Departmental ethics approval
- Professional context, including the professional and ethical issues
- Preparing for the viva and the presentation

In addition to the taught subjects, students will have feedback sessions with their individual supervisors as detailed below.

4.4 Learning and Teaching Strategy

- 6x one hour LET workshops
- 6x 90 minute workshops
- 6x 20 minute feedback sessions with supervisors
- 283 Hours of independent study

Total: 300 hours

Please note that the project work should not be an extension of student's existing or previous coursework.

There will be a viva-voce demonstration during the semester interval. Attendance at the viva presentation is compulsory.

Additional learning materials and support will be provided on the Virtual Learning Environment.

4.5 Weekly Plan

Our tentative weekly plan is as follows.

Weeks	Led by	Topics
Week 1	Module Leader	Introduction to Projects.
Week 2	LET team	Using our library for research.
Week 3	Module Leader	Guest speaker: Dr Carlisle George. The ethics approval procedure.
Week 4	LET Team	Academic Writing and Language.
Week 5	Module Leader	Proposal and the first coursework.
Week 6	LET Team	Academic Writing and Language.
Week 7	Module Leader	Research methods.
Week 8	LET Team	Maths, Stats and Numeracy.
Week 9	Module Leader	Final report.
Week 10	LET Team	Academic Writing and Language.
Week 11	Module Leader	Viva and presenting your work. Wrapping up.
Week 12	LET Team	Academic Writing and Language.

4.6 Assessment Scheme

(i) Formative assessment scheme The students are expected to have regular consultations with their supervisors. This is to allow them to discuss various issues regarding their projects, including problem statement, aims and software specifications or research hypothesis, and any other problems related to the projects.

In supervisory meetings, the work towards the project will be scrutinised together with reviewing the project's strengths and weaknesses to improve it effectively.

(ii) Summative assessment scheme

Task 1: First Coursework: Literature Review, 10% weight of your overall mark.

Task 2: Second Coursework: Portfolio (report + viva), Report is 60% of your overall mark, Viva is 30%.

Task 1 is due to Week 6, Task 2 is due Week 12.

In 2024-5 Academic Year, Task 1 is due March 2nd Sunday night, and Task 2 is due April 13th Sunday night.

4.7 Research Ethics

The teaching, learning, assessment and research activities undertaken in this module have been considered and are not likely to require ethical approval.

However, please seek advice if undertaking the module entails carrying out any research activities involving human participants, human data, animals/animal products, precious artefacts, materials, or data systems. If you submit work that includes data gathered from or about people, this may be treated as academic misconduct and could lead to fail grade being awarded.

Research ethics approval seeks to ensure all research is designed and undertaken according to certain principles of ethical research. These include:

1. Primary concern must be given to the safety, welfare and dignity of participants, researchers, colleagues, the environment, and the wider community

2. Consideration of risks should be undertaken before research commences with the aim of minimising risks to those involved – i.e. human participants or animal subjects, colleagues, the environment and the wider community, as well as actual or potential risks to those directly or indirectly affected by the research.

3. Informed consent should be freely given by participants, and by a trained person when collecting or analysing human tissue.

4. Respect for the privacy, confidentiality and anonymity of participants

5. Consideration of the rights of people who may be vulnerable (by virtue of perceived or actual differences in their social status, ethnic origin, gender, mental capacities, or other such characteristics) who may be less competent or able to refuse to give consent to participate

6. Researchers have a responsibility to the general public and to their profession; as such they should balance the anticipated benefits of their research against potential harm, misuse or abuse which must be avoided

7. Researchers must demonstrate the highest standards of ethical conduct and research integrity. They must work within the limits of their skills, training and experience, and refrain from exploitation, dishonesty, plagiarism, infringement of intellectual property rights and the fabrication of research results. They should declare any actual or potential conflicts of interest, and where necessary take steps to resolve them.

8. When using human tissues for research, Human Tissue Act and Human Tissue Authority (HTA) requirements must be met. Please contact the relevant designated person (DP) in your department or the HTA Designated Individual (DI) (Dr Lucy Ghali). Further information is provided below in the section: "Human Tissue Authority Information", see 'Governance Structure" document and SOPs etc. 9. Research should not involve any illegal activity, and researchers must comply with all relevant laws.

For more information about ethics go to the Middlesex Online Research Ethics (MORE) system which has information and guidance to help you meet the highest standards of

ethical research using this link.

Information and further guidance on how to complete a research ethics application form (e.g., video guides and templates) can be found on the MORE MyLearning site (Log in required).

We significantly simplified the process of applying for ethics approval. If your project is low risk, now it can be signed off by your supervisor. The form must be included in your second coursework. If your project is not low risk, you must apply for an approval before the deadline of your second coursework and include the evidence of your application in your second coursework.

5 Learning Resources

As a brief outline on how to prepare projects please refer to the following book:

> Thesis Projects: A Guide for Students in Computer Science and Information Systems, Berndtsson, Mikael; Hansson, Joergen; Olsson, B.;Lundell, Bjoern, Springer.

The textbook is also available at readinglists.mdx.ac.uk.

My lectures and slides will be based on our textbook. It is highly recommended that you follow the lectures from the textbook and read all of it.

The textbook is also a great reference. Whilst working on your project, it is advisable to take a look at it to advance your understanding of how to work on a project and write a report about it.

6 Expectations of Studying This Module

6.1 Behaviour

Mobile phones All mobile phones must be switched to silent during sessions unless directed by your tutor to do otherwise. Calls and texts cannot be made or received during sessions unless agreed with the tutor prior to the session starting. If you are observed using your mobile phone you can be asked to leave the session. Do not take pictures of the board – slides are already in MyLearning page. Instead, take note. Students learn by taking note, not by taking pictures.

Attendance and Engagement Engaging with online and on-campus in-person learning and activities is integral to your success. Middlesex University supports you to achieve your full potential through a number of strategies, all of which provide a supportive learning environment online, remotely, face-to-face, or blended.

Further information on attendance and engaging with your programme will be available at your Induction and general information is available at this link.

Professional behaviour and online conduct The programme of study you are undertaking is underpinned by developing professional behaviour and attitude. You are expected to behave in a professional, supportive manner to your peers and teachers. You must come to sessions prepared and ready to contribute where appropriate. Please remember that your University ID should be carried with you always whilst on campus and you must be able to identify yourself if asked to do so. Please conduct your email communication with fellow students, tutors and all relevant staff in a formal and courteous manner.

6.2 Academic Integrity and Misconduct

Academic Integrity is a set of principles and values to show that you work in a professional, honest and ethical way. You should be aware of the University's academic integrity and misconduct policies and procedures. Taking unfair advantage over other students in assessment is considered a serious offence by the University. Action will be taken against any student who contravenes the regulations through negligence, foolishness or deliberate intent.

Academic misconduct takes several forms, in particular:

- **Plagiarism** using extensive unacknowledged quotations from, or direct copying of, another person's work and presenting it for assessment as if it were your own effort. This includes the use of third party essay writing services.

- **Collusion** working together with other students (without the tutor's permission), and presenting similar or identical work for assessment.
- **Infringement of Exam Room Rules** Communication with another candidate, taking notes to your table in the exam room and/or referring to notes during the examination.
- **Self-Plagiarism** including any material which is identical or substantially similar to material that has already been submitted by you for another assessment in the University or elsewhere.
- **Unauthorised use of Artificial Intelligence** using artificial intelligence without referencing as such in your submission.

Links to the relevant University regulations and additional support resources can be found here in the following.

Student Success Essentials Course includes useful information about how to approach your assessments and complete them with honesty. The course also describes what plagiarism (cheating) is and how to avoid it so you don't face any disciplinary action. For successfully completing this course, you will be awarded a certificate that will verify the knowledge you have gained. Certificates can be shared and promoted via LinkedIn and other digital channels. You will have to log into to MyMDX and then MyLearning to access the course at this link.

Full details on academic integrity and misconduct and the support available can be found at this link.

The Academic Integrity and Misconduct policy is available in our Public Policy Statements (under Academic Quality) at: Our policies — Middlesex University London (mdx.ac.uk)

Referencing & Plagiarism: Please consult to the link if you are suspected of plagiarism

Referencing and avoiding plagiarism: Please consult to the link for further details on avoiding plagiarism

The Middlesex University Students' Union (MDXSU) Advice Service offers free and independent support in making an appeal, complaint or responding to any allegations of academic or non-academic misconduct: mdxsu.com/advice

6.3 Extenuating Circumstances

There may be difficult circumstances in your life that affect your ability to meet an assessment deadline or affect your performance in an assessment. These are known as extenuating circumstances or "ECs". Extenuating circumstances are exceptional, seriously adverse and outside of your control. For further information search 'Extenuating circumstances' in MyMDX.

7 Workshops and Meeting Your Supervisors

In this module, you will have:

- 6x one hour LET workshops with the Learning Enhancement Team,
- 6x 90 minute workshops with the module leader,
- 6x 20 minute feedback sessions with supervisors,
- 283 Hours of independent study

which total to 300 hours of study.

We expect you to take the initiative in the first weeks of the term and contact your supervisor to arrange your first project meeting. You may contact them by email, on their office phone number or by attending at their office during the office hours shown on the office door.

At the first project meeting, we would strongly advise you to agree with your supervisor a time for regular weekly meetings for the duration of the project. Once the project is under way and you have agreed tasks on which to work, you may find that you do not need to meet every week. However, keeping a regular weekly meeting slot in your timetable and your supervisor's is the best way to make sure you stay in contact with your supervisor.

Because your time with your supervisor is limited, you must use the time effectively. Before each meeting, you should decide on the topics you wish to discuss or the work you want to show your supervisor, and by the end of each meeting, you should have agreed the task you will carry out before the next meeting.

You need to have at six (or more, if agreed) meetings with our supervisor.

You will write a substantial report in this module. If you think you need some help in organising your thoughts, searching for literature and writing your report, the library can offer some help. Our subject librarian can be reached via this link.

The Learning Enhancement Team, Academic Writing support and Maths numeracy team can be reached via the following contact information.

- Librarians: Go to MDX Library, choose Chat or Ask a Librarian
- Learning Enhancement Team (LET): Available via myMDX
- LET Academic Writing and Language email: AWL@mdx.ac.uk
- LET Maths, stats and numeracy email: MSN@mdx.ac.uk

Please do not hesitate the contact our librarians for support!

The schedule of the timetabled 90-minute workshops with your module leader will be announced on myMDX and your timetables.

8 Assessments

8.1 Overview

Formative assessment Formative assessments help show that you are learning and understanding the material covered in this module and allow us to monitor your progress towards achieving the learning outcomes. Although formative assessments do not directly contribute to the overall module mark they do provide an important opportunity to receive feedback on your learning.

The students are expected to have regular consultations with their supervisors. This is to allow them to discuss various issues regarding their projects, including problem statement, aims and software specifications or research hypothesis, and any other problems related to the projects.

In supervisory meetings, the work towards the project will be scrutinised together with reviewing the project's strengths and weaknesses to improve it effectively.

Summative assessment Summative assessment is used to check the level of learning for the module. It is summative because it is based on accumulated learning during the course. It is the summative assessment that determines the grade that you are awarded for the module.

The table below specifies the associated deadlines:

Summative Assessment	**Weighting**	**Deadline**	**Feedback**
First Coursework	10%	March 2, 2025	turnitin and supervisory meetings
Portfolio (report + viva)	90% (60% + 30%, respectively)	April 13, 2025	turnitin and supervisory meetings

It is important to note that it is *not* possible to extend the deadlines at all.

In order to pass this module, you need to achieve and overall aggregate of grade 16.

Before you submit your work for final grading, please ensure that you have accurately referenced the work. It is your responsibility to check the spelling and grammar, as all written assessments will assess technical proficiency in the English. This means accurate and effective spelling, punctuation and grammar. Details of how it will be assessed will be provided in the marking criteria for each assessment and the University overall approach can be found within the Grade Criteria Guide in the University Regulations.

Reasonable adjustments will be made for those students who have a declared disability/specific learning condition which would affect performance in this area.

Reassessment for this module normally takes place in the following way.

Further information is available in MyMDX.

8.2 First Coursework

The First Coursework is a formal piece of writing. It is supposed to have three parts. The first part, the proposal, will be composed of a few pages and explain the aim of the project: why it matters, how it can be motivated. The second part, the literature review, will be a substantial review of the state of the art in the area. Even if you are carrying out a software-based project, you will scan the literature and write a critical review. The third and the final part is what we call "first-steps". There you will talk about what you have achieved towards your goal so far.

Also note that the first coursework *must* contain your ethics form – either the "Ethics Screening Form", signed by your supervisor, or a copy of the submitted MORE form. It is part of the marking scheme of the first coursework as you can see in Section 9.

8.3 Second Coursework

The Second Coursework, the Final Report is a formal piece of writing. As such it needs to adhere to certain stylistic criteria.

- Paper size: A4 with default margins.
- Line Spacing: 1.5
- Font: Arial or Times New Roman, or equivalent 12 point.
- Word limit: 15,000 words, unless agreed otherwise with the supervisor. Your supervisor may increase this limit to 18,000 words.

Honour Code In the preamble of your report, the following honour code must be included, and signed-and-dated by the student.

> *I hereby confirm that the work presented here in this report and in all other associated material is wholly my own work.*

Creative Commons It is our intention to archive some selected projects. For this reason, the project reports must have a Creative Commons licence.

We advise students to include the following phrase in the preamble of their work:

You may see the details on the Creative Commons website:

creativecommons.org

Please note that it is not compulsory to include the CC licence, and in either case you hold the copyright of your work and it remains your intellectual property.

8.4 Feedback

You will be provided with feedback on all assessments that is helpful and informative, consistent with aiding the learning and development process. The nature of the feedback shall be determined at programme level but may take a variety of forms including: written comments; individual and group tutorial feedback; peer feedback; or other forms of effective and efficient feedback. If you have submitted a formative or draft assessment, you will receive feedback but no grade. The comments should inform you about how well you have done or tell you about the areas for improvement. All assignments should be submitted online unless specified in assessment briefs.

Feedback on summative assessments will normally be provided within 15 working days of the published submission date.

Please check the TurnitIn links you used to submit your work to get your written feedback. It is advisable to discuss the feedback with your supervisor at the next meeting.

8.5 How is Your Assignment Mark Agreed?

External Examiners (external academic experts) review what we deliver at a programme level. The University reviews a sample of your work to quality assure the grades and feedback you received from the person who marked your work. Our External Examiners will sample a selection of modules from a programme, with more focus of outcomes between modules within a programme.

The following flowchart provides an overview of the marking process for your module assessment. Further information on the role of external examiners can be found in the Academic Quality Handbook, §4

1. You submit your assignment.
2. The first marker grades the work and provides feedback; this could be completed anonymously depending on the assessment type.
3. A second marker also marks the final portfolio to quality assure the grades and feedback and to ensure they are accurate. A final mark for the work is agreed between the first marker (your supervisor) and the second marker.
4. A sample of work, from a selection of modules across the programme, is sent to the External Examiner to check that the grading and feedback is at the right level and in line with external subject benchmarks (this applies to levels 5, 6 and 7only).
5. Your final grades are submitted to the Programme assessment board.

Results Confirmation

First Semester Provisional Grades: At the end of your first semester, you can see your module grades in the Grades and Progress tile within MyMDX. These grades are provisional and not yet confirmed.

Second Semester Final Grades and Progression: After your second semester, the Programme Assessment Board will confirm your grades. Then, your final module results, progression status, or finalist classification will be posted in the Grades and Progress tile within MyMDX.

Need Help or More Information?

- University Guide: Find detailed information in the University Guide in the Grades and Progress tile within MyMDX.
- Support Team: Ask your Progression and Support Team Officer for advice.
- Regulations: Check the University regulations for more details.

Anonymous Marking Assessment Policy We have worked with the Middlesex University Students' Union (MDXSU) to create an anonymous marking policy, in response to student feedback. Anonymous marking ensures that your identity (your name, student number and other personal/identifiable information) is not made available to academics when they are marking your work. This means that you can have confidence that your assessments will be marked fairly and consistently. However, there are some forms of

assessment for which anonymity cannot be guaranteed and these are recognised in the policy.

The Anonymous Marking Assessment Policy is available this link

We now look at each component of summative assessment for this module in detail. Each of the following tables provides an overview of the requirements.

9 Assessment Rubrics

You can find the assessment rubrics for all coursework here. It is important to familiarise yourselves with the way your coursework will get marked before finalising them.

9.1 First Coursework

Criteria	**1-4, First** (> 70%)	**5-8, Upper Second** (60 – 69%)	**9-12, Lower Second** (50 – 59%)	**13-16, Third** (40 – 49%)	**17-20, Fail** (< 40%)
Literature Review	- Contains an excellent and brief proposal - Contains an excellent presentation of problem background and literature - Shows critical reflection - Reflects the state of the art of the research idea	- Contains a very good and brief proposal - Contains a very good presentation of problem background and literature - Shows some critical reflection - Reflects the state of the art of the research idea well	- Contains a good or too long proposal - Contains a good presentation of problem background and literature - Shows little critical reflection - Reflects the state of the art of the research idea somewhat	- Contains a passable proposal - Contains a passable but barely satisfactory presentation of problem background and literature - Shows passable or very little critical reflection - Reflects the state of the art of the research idea barely	- Contains no proposal - Contains no good presentation of problem background and literature - Shows no critical reflection - Does not reflect the state of the art of the research idea
First Steps	Shows excellent first steps towards the proposed objectives, giving the sense that the research is progressing very well	Shows very good first steps towards the proposed objectives, giving the sense that the research is progressing well, requiring little correction	Shows good first steps towards the proposed objectives, giving the sense that the research is progressing well, requiring some corrections	Shows passable first steps towards the proposed objectives, giving the sense that the research is progressing well, requiring major corrections	Shows no realistic first steps towards the proposed objectives, giving the sense that the research is not progressing well at all

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Criteria	**1-4, First** (> 70%)	**5-8, Upper Second** (60 – 69%)	**9-12, Lower Second** (50 – 59%)	**13-16, Third** (40 – 49%)	**17-20, Fail** (< 40%)
Style	Shows excellent style of technical English use, logical presentation, and correct use of bibliography	Shows good style of technical English use, logical presentation, and almost-correct use of bibliography	Shows good enough style of technical English use, logical presentation, and mostly correct use of bibliography	Shows passable style of technical English use, logical presentation, and somewhat correct use of bibliography	Showing no good style of technical English use, no logical presentation, incorrect use of bibliography
Ethics Approval	Give 10 if the ethics form is properly filled and included.	(no partial credit for ethics form)	(no partial credit for ethics form)	(no partial credit for ethics form)	Give 0 if there is no ethics form.

9.2 Portfolio - Final Report

Criteria	**1-4, First** (> 70%)	**5-8, Upper Second** (60 – 69%)	**9-12, Lower Second** (50 – 59%)	**13-16, Third** (40 – 49%)	**17-20, Fail** (< 40%)
Abstract	Abstract is good, not too short nor too long	–	Abstract is not good, either too short or too long	–	There is no abstract
Background	A clear rationale for the topic choice, excellent presentation of problem background and state of the art in the field	A good rationale for the topic choice, very good presentation of problem background and state of the art in the field that require very little correction	A good rationale for the topic choice, good presentation of problem background and state of the art in the field that require some corrections	Some rationale for the topic choice, somewhat passable presentation of problem background and state of the art in the field that require some major corrections	No rationale for the topic choice, not-good presentation of problem background and state of the art in the field that require some major and fundamental corrections
Contribution	Significant and excellent contributions in terms of either (or both) theory or applications.	Very good contributions in terms of either (or both) theory or applications	Good contributions in terms of either (or both) theory or applications with some minor corrections	Passable contributions in terms of either (or both) theory or applications with some major corrections	No contributions whatsoever in terms of either (or both) theory or applications at all

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Criteria	**1-4, First** (> 70%)	**5-8, Upper Second** (60 – 69%)	**9-12, Lower Second** (50 – 59%)	**13-16, Third** (40 – 49%)	**17-20, Fail** (< 40%)
Evaluation	- An excellent comparison with the state of the art is performed to justify the findings - Excellent justification of obtained results with convincing conclusions	- A very good comparison with the state of the art is performed to justify the findings - A very good justification of obtained results with convincing conclusions	- A good comparison with the state of the art is performed to justify the findings that require minor corrections - A good justification of obtained results with somewhat convincing conclusions that require minor corrections	- A passable comparison with the state of the art is performed to justify the findings that require major corrections - A passable justification of obtained results with not-so conclusions, requiring major corrections	- No realistic comparison with the state of the art is performed to justify the findings - No real justification of obtained results with no convincing conclusions
Style	Shows excellent style of technical English use, logical presentation, and correct use of bibliography	Shows good style of technical English use, logical presentation, and almost-correct use of bibliography	Shows good enough style of technical English use, logical presentation, and mostly correct use of bibliography	Shows passable style of technical English use, logical presentation, and somewhat correct use of bibliography	Showing no good style of technical English use, no logical presentation, incorrect use of bibliography

9.3 Portfolio - Viva

Criteria	**1-4, First** (> 70%)	**5-8, Upper Second** (60 – 69%)	**9-12, Lower Second** (50 – 59%)	**13-16, Third** (40 – 49%)	**17-20, Fail** (< 40%)
Topic, content, and contribution	In-depth understanding of knowledge and the conducted work, supported by demonstrations and explanations	Very good understanding of the conducted work in relation to underpinning theories, concepts and related fields.	Good knowledge and understanding of topics theories and concepts	Adequate content, and limited depth of knowledge and understanding	Inadequate content and limited depth of knowledge and understanding
Artefact, presentation, and communication	Excellent in structure, logic flow, communications, effective use of presentation tools	Very good in structure, logic flow, communications, effective use of presentation	Good in structure, logic flow, communications, effective use of presentation tools	Adequate in structure, logic flow, communications, effective use of presentation tools	Poorly in structure, logic flow, communications, effective use of presentation tools
Answering questions	Full understanding of questions, answering them in full	Good understanding of questions, answering them well	Average understanding of questions, answering them in satisfactorily	Limited understanding of questions, answering them in a limited fashion	No understanding of questions and no correct answers

10 University 20-point Scale

20-point scale	General scale	General scale (full ranges)	Percentage used for aggregation purposes only (for areas marking directly to the 20 point scale on modules with multiple assessment components)
1	80% - 100%	79.50% - 100%	90%
2	76% - 79%	75.50% - 79.49%	77.5%
3	73% - 75%	72.50% - 75.49%	74%
4	70% - 72%	69.50% - 72.49%	71%
5	67% - 69%	66.50% - 69.49%	68%
6	65% - 66%	64.50% - 66.49%	65.5%
7	62% - 64%	61.50% - 64.49%	63%
8	60% - 61%	59.50% - 61.49%	60.5%
9	57% - 59%	56.50% - 59.49%	58%
10	55% - 56%	54.50% - 56.49%	55.5%
11	52% - 54%	51.50% - 54.49%	53%
12	50% - 51%	49.50% - 51.49%	50.5%
13	47% - 49%	46.50% - 49.49%	48%
14	45% - 46%	44.50% - 46.49%	45.5%
15	42% - 44%	41.50% - 44.49%	43%
16	40% - 41%	39.50% - 41.49%	40.5%
17	35% - 39%	34.50% - 39.49%	37%
18	30% - 34%	29.50% - 34.49%	32%
19	0% - 29%	0.01% - 29.49%	15%
20	Non-participation	0%	0% (non-submission of a component)

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