



MONASH University

FIT5008
Digital communications project

Unit guide

Semester 2, 2008

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Unit leader :

Nandita Bhattacharjee

Lecturer(s) :

Clayton

- Bala Srinivasan
- David Abramson
- Nandita Bhattacharjee
- Andrew Paplinski
- Asad Khan
- Carlo Kopp
- Iqbal Gondal
- Charles Greif
- Jefferson Tan

Introduction

Welcome to FIT5008 Digital communications project for semester 2, 2008. This 12-point project is a compulsory unit in the Master of Digital Communications degree program, unless the 24-point minor thesis option is taken. This unit may be taken in a single semester or over two semesters (semester 1 and/or 2).

The purpose of the project unit is to provide students with an opportunity to demonstrate that they can carry out a reasonably large piece of individual research, investigation, development and/or reporting work under supervision, and have it assessed. The project unit should be undertaken **after the completion (or close to completion) of other units in the course.**

Unit synopsis

The project topic and summary must be approved by the project supervisor prior to its commencement. The students are encouraged to create their own project topics. Some general guidelines in the selection of a project topic are given below.

- A student should choose a topic of interest in a relevant area of the course. Such a project generally consists of either a research topic investigation and reporting on a new communications technology, or developing an item of communications software/hardware. Quite a number of previous students take this path.
- A student can also recommend some tasks within one's employment, which has a communications aspect, be treated as a project and written up accordingly. These may include internal network redesigns, equipment specification and selection, communications software development, etc.
- The project should include some innovative work, a mere repeat of what's existing is not normally acceptable.

The above project topics normally fall into one of the following three areas:

- Software Development Projects : Note that most require access to a good-quality multi-tasking operating system, and associated compilers and support software.
- Investigative Reports : These are usually based on a survey of the literature available on a topic, and the writing of a comprehensive report. The topics have changed over time as the technology has developed. For maturing technologies comprehensive texts usually appear, which largely eliminate the possibility of an independent report.
- Employment-based Projects : A number of projects have been carried out as part of students' employment. In such cases, it is quite appropriate that the report be kept confidential, provided it can be assessed.
- Research and development of new technology : Existing or new research in a relevant area.

After deciding the topic, students are encouraged to talk to or email a potential supervisor. The unit leader can also help to suggest a supervisor. Upon the agreement of supervision, the project student will complete a project proposal. This proposal must be approved by the supervisor before the start of the project. The student is expected to submit a project report which contains a complete account of the work done and the results obtained. The supervisor can advise on all aspects of the preparation of the thesis/report, and check through the draft if received with ample notification.

Learning outcomes

On successful completion the student will be able to understand:

- a field of consolidated knowledge in digital communications.
- the technology and development in the project topic area.
- the concept of a significant individual task that involves research and innovation in digital

communications.

They will also have knowledge of:

- standards, protocols, trends and developments in the topic area.

and be able to:

- analyse some specific protocols and technologies in the topic area and their operations.
- evaluate the advantages and disadvantages of particular technologies in specific topic area.
- carry out an investigation into the selection and deployment of particular digital communications technologies.
- describe the characteristics of the key technologies in the topic area, and the role they play.

Upon completion of this unit, students will have an appreciation of

- the importance of carrying out a reasonably large piece of individual research, investigation and development and reporting under supervision.
- the importance of report writing and its related skills.

Upon completion the student will have gained experience in

- communicating information on one or more advanced topics in digital communications area in written and/or oral form
- working individually on one or more advanced topics in digital communications technology.

Workload

24 hours per week (for one semester enrolment) or 12 hours per week (for two semester enrolment) of research, laboratory work, private study and supervision meetings.

Unit relationships

Prerequisites

Before attempting this unit you must have satisfactorily completed

1. At least four units from the list of specified electives for the Master of Digital Communications. The students are encouraged to do their projects at the completion stage of their degree/diploma.
2. Suitable project topic and proposal are presented and supervisor agreed
3. The project topic and proposal agreed by the unit leader.

Depending on the project topic, and the prior knowledge and skills of the student, the supervisor or course coordinator may require one or more graduate units to be completed prior to commencing the project, or to be studied concurrently with the project. These units would be taken as part of the course structure, and would be counted towards the points requirement of the course.

Relationships

FIT5008 is a core unit in the Master of Digital Communications degree. It can only be replaced with a 24-point minor thesis which may consist of FIT5014 which is a 24-point unit taken over a single semester. It is also possible to take the 24-point Minor Thesis over more than one semester by enrolling in units that collectively comprise 24

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points, ie FIT5016 (6 points); FIT5017 (12 points); and FIT5018 (18 points).

You may not study this unit and other graduate project subjects in your degree.

Continuous improvement

Monash is committed to 'Excellence in education' and strives for the highest possible quality in teaching and learning. To monitor how successful we are in providing quality teaching and learning Monash regularly seeks feedback from students, employers and staff. Two of the formal ways that you are invited to provide feedback are through Unit Evaluations and through Monquest Teaching Evaluations.

One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. It is Monash policy for every unit offered to be evaluated each year. Students are strongly encouraged to complete the surveys as they are an important avenue for students to "have their say". The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

Student Evaluations

The Faculty of IT administers the Unit Evaluation surveys online through the my.monash portal, although for some smaller classes there may be alternative evaluations conducted in class.

If you wish to view how previous students rated this unit, please go to <http://www.monash.edu.au/unit-evaluation-reports/>

Over the past few years the Faculty of Information Technology has made a number of improvements to its courses as a result of unit evaluation feedback. Some of these include systematic analysis and planning of unit improvements, and consistent assignment return guidelines.

Monquest Teaching Evaluation surveys may be used by some of your academic staff this semester. They are administered by the Centre for Higher Education Quality (CHEQ) and may be completed in class with a facilitator or on-line through the my.monash portal. The data provided to lecturers is completely anonymous. Monquest surveys provide academic staff with evidence of the effectiveness of their teaching and identify areas for improvement. Individual Monquest reports are confidential, however, you can see the summary results of Monquest evaluations for 2006 at <http://www.adm.monash.edu.au/cheq/evaluations/monquest/profiles/index.html>

Unit staff - contact details

Unit leader

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Lecturer

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Additional communication information

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Teaching and learning method

Supervised individual research and experimentation as required by the project.

Students will work closely with their project supervisors during the entire period of the project. Students are expected to consult with and seek advice from their respective supervisors on a regular basis. In consultation with their supervisors, students are expected to produce a project proposal and project plan outlining the agreed project milestones and deliverable, and to steer the project to its completion.

Individual and group supervision and/or lecture to cover all objectives.

Communication, participation and feedback

Monash aims to provide a learning environment in which students receive a range of ongoing feedback throughout their studies. You will receive feedback on your work and progress in this unit. This may take the form of group feedback, individual feedback, peer feedback, self-comparison, verbal and written feedback, discussions (on line and in class) as well as more formal feedback related to assignment marks and grades. You are encouraged to draw on a variety of feedback to enhance your learning.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are short, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

Unit Schedule

Week	Topic	Key dates
2	Project Proposal	12 noon, 25-07-2008
3	Supervisor's approval	4 PM, 1-08-2008
4	Project Start	
10	Report Writing	
Mid semester break		
12	Project Report	12 noon, 10-10-2008

Unit Resources

Prescribed text(s) and readings

As recommended by the supervisor.

Text books are available from the Monash University Book Shops. Availability from other suppliers cannot be assured. The Bookshop orders texts in specifically for this unit. You are advised to purchase your text book early.

Recommended text(s) and readings

As recommended by the supervisor.

Required software and/or hardware

Depends on the topic area, access to general software related with linux/MS Windows is necessary.

Equipment and consumables required or provided

A project room equipped with PCs running Linux/MS Windows. Out of hours access if required should be arranged with the supervisor.

Students studying off-campus are required to have the minimum system configuration specified by the Faculty as a condition of accepting admission, and regular Internet access. On-campus students, and those studying at supported study locations may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook. You will need to allocate up to 5 hours per week for use of a computer, including time for newsgroups/discussion groups.

Study resources

Study resources we will provide for your study are:

the standard resources made available to post graduate students and those available/procured specifically by your supervisor.

Library access

The Monash University Library site contains details about borrowing rights and catalogue searching. To learn more about the library and the various resources available, please go to <http://www.lib.monash.edu.au>. Be sure to obtain a copy of the Library Guide, and if necessary, the instructions for remote access from the library website.

As with minor and major research theses, no library resources specific to this subject can be identified in advance. It is expected that project students will frequently make use of existing monograph and serial holdings. Where additional material specific to a particular project is required, this will be negotiated between the School and Library at the time, as occurs with research students.

Monash University Studies Online (MUSO)

All unit and lecture materials are available through MUSO (Monash University Studies Online). Blackboard is the primary application used to deliver your unit resources. Some units will be piloted in Moodle. If your unit is piloted in Moodle, you will see a link from your Blackboard unit to Moodle (<http://moodle.monash.edu.au>) and can bookmark this link to access directly. In Moodle, from the Faculty of Information Technology category, click on the link for your unit.

You can access MUSO and Blackboard via the portal: <http://my.monash.edu.au>

Click on the Study and enrolment tab, then Blackboard under the MUSO learning systems.

In order for your Blackboard unit(s) to function correctly, your computer needs to be correctly configured.

For example:

- Blackboard supported browser
- Supported Java runtime environment

For more information, please visit: <http://www.monash.edu.au/muso/support/students/downloadables-student.html>

You can contact the MUSO Support by: Phone: (+61 3) 9903 1268

For further contact information including operational hours, please visit:
<http://www.monash.edu.au/muso/support/students/contact.html>

Further information can be obtained from the MUSO support site:
<http://www.monash.edu.au/muso/support/index.html>

Assessment

Unit assessment policy

The project will be assessed mainly by the project supervisor and the result approved by the course coordinator.

Depending on the project topic, the assessed material resulting from the project will consist of:

1. the project proposal and plan;
2. the working prototype software and/or hardware, plus appropriate supporting and operational documentation;
3. an extensive report of the results of the investigation;
4. where appropriate, an oral presentation and demonstration to the examiner(s).
5. The assessed material must commensurate with at least 300 hours of graduate-level project work. As an indication, the 12 point project leading solely to a written report would typically result in a report of at least 12,000 words.

Project guidelines and assessment details are available at:

<http://infotech.monash.edu.au/courses/2008/postgraduate/2406/study/project-guidelines.html>

Assignment tasks

• Assignment Task

Title : FIT5008: Digital Communications Project Report

Description :

Refer to project guidelines at :

<http://www.infotech.monash.edu.au/courses/2008/postgraduate/2406/study/project-guidelines.html>

Weighting : 100%

Criteria for assessment :

An approved project proposal is a hurdle requirement for the project, the absence of which will lead to a failure in the project unit FIT5008.

The main deliverable in the project will be the report, plus a demonstration of any hardware/software developed if applicable. The supervisor may also request an oral examination in the form of an interview or a presentation.

While materials from the Internet, published books and articles are good source of information, students should be extremely vigilant against plagiarism when writing their reports. Plagiarism can be easily detected with the submitted electronic copy of report. **Plagiarism will lead to the failure of the project and may result in disciplinary action against the student. Please read assessment policies for a good guidance against plagiarism.**

Due date : 12 noon, 10-10-2008

Assignment submission

1. Project proposal should be submitted **electronically via Blackboard. A hard copy of the proposal has also to be submitted in the assignment box located outside the general office in Building 63 by 12 noon, 25-07-2008**, with the appropriate cover sheet correctly filled out and attached.
2. Project report should be submitted **electronically via Blackboard. A hard copy of the report has also to be submitted in the assignment box located outside the general office in Building 63 by 12 noon, 10-10-2008**, with the appropriate cover sheet correctly filled out and attached.

Assignment coversheets

Cover sheet for the project report is available at:

<http://www.infotech.monash.edu.au/resources/student/assignments/>

Students MUST read and understand the assignment policies before submitting.

University and Faculty policy on assessment

Due dates and extensions

The due dates for the submission of assignments are given in the previous section. Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are seldom regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Late assignment

Requests for extensions must be made to the unit Chief Examiner at your campus **at least two days before the due date**. You will be asked to forward original medical certificates in case of illness, and may be asked to provide other forms of documentation where necessary.

A copy of the email or other written communication of an extension *must* be attached to the report submission.

Reports received after the due date will be subject to a penalty of 5% per day. Reports received later than one week (seven days) after the due date will not normally be accepted.

Return dates

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Assessment for the unit as a whole is in accordance with the provisions of the Monash University Education Policy at <http://www.policy.monash.edu/policy-bank/academic/education/assessment/>

Project report results will be made available to you with the semester exam results.

Plagiarism, cheating and collusion

Plagiarism and cheating are regarded as very serious offences. In cases where cheating has been confirmed, students have been severely penalised, from losing all marks for an assignment, to facing disciplinary action at the Faculty level. While we would wish that all our students adhere to sound ethical conduct and honesty, I will ask you to acquaint yourself with Student Rights and Responsibilities (<http://www.infotech.monash.edu.au/about/committees-groups/facboard/policies/studrights.html>) and the Faculty regulations that apply to students detected cheating as these will be applied in all detected cases.

In this University, cheating means seeking to obtain an unfair advantage in any examination or any other written or practical work to be submitted or completed by a student for assessment. It includes the use, or attempted use, of any means to gain an unfair advantage for any assessable work in the unit, where the means is contrary to the instructions for such work.

When you submit an individual assessment item, such as a program, a report, an essay, assignment or other piece of work, under your name you are understood to be stating that this is your own work. If a submission is identical with, or similar to, someone else's work, an assumption of cheating may arise. If you are planning on working with another student, it is acceptable to undertake research together, and discuss problems, but it is not acceptable to jointly develop or share solutions unless this is specified by your lecturer.

Intentionally providing students with your solutions to assignments is classified as "assisting to cheat" and students who do this may be subject to disciplinary action. You should take reasonable care that your solution is not accidentally or deliberately obtained by other students. For example, do not leave copies of your work in progress on the hard drives of shared computers, and do not show your work to other students. If you believe this may have happened, please be sure to contact your lecturer as soon as possible.

Cheating also includes taking into an examination any material contrary to the regulations, including any bilingual dictionary, whether or not with the intention of using it to obtain an advantage.

Plagiarism involves the false representation of another person's ideas, or findings, as your own by either copying material or paraphrasing without citing sources. It is both professional and ethical to reference clearly the ideas and information that you have used from another writer. If the source is not identified, then you have plagiarised work of the other author. Plagiarism is a form of dishonesty that is insulting to the reader and grossly unfair to your student colleagues.

Register of counselling about plagiarism

The university requires faculties to keep a simple and confidential register to record counselling to students about plagiarism (e.g. warnings). The register is accessible to Associate Deans Teaching (or nominees) and, where requested, students concerned have access to their own details in the register. The register is to serve as a record of counselling about the nature of plagiarism, not as a record of allegations; and no provision of appeals in relation to the register is necessary or applicable.

Non-discriminatory language

The Faculty of Information Technology is committed to the use of non-discriminatory language in all forms of communication. Discriminatory language is that which refers in abusive terms to gender, race, age, sexual orientation, citizenship or nationality, ethnic or language background, physical or mental ability, or political or religious views, or which stereotypes groups in an adverse manner. This is not meant to preclude or inhibit legitimate academic debate on any issue; however, the language used in such debate should be non-discriminatory and sensitive to these matters. It is important to avoid the use of discriminatory language in your communications and written work. The most common form of discriminatory language in academic work tends to be in the area of gender inclusiveness. You are, therefore, requested to check for this and to ensure your work and communications are non-discriminatory in all respects.

Students with disabilities

Students with disabilities that may disadvantage them in assessment should seek advice from one of the following before completing assessment tasks and examinations:

- Faculty of Information Technology Student Service staff, and / or
- your Unit Coordinator, or
- [Disabilities Liaison Unit](#)

Deferred assessment and special consideration

Deferred assessment (not to be confused with an extension for submission of an assignment) may be granted in cases of extenuating personal circumstances such as serious personal illness or bereavement. Information and forms for Special Consideration and deferred assessment applications are available at <http://www.monash.edu.au/exams/special-consideration.html>. Contact the Faculty's Student Services staff at your campus for further information and advice.