**COMP 7615:**

**Term Project Fall 2016**

1. **Introduction**

This course contains a project component, where you have the freedom to explore a topic from this term that interests you. It must be a project with sufficient technical depth/relevance, requiring a component of research, and experimentation/hands-on.

1. **Scope of Project**

* You Final Report should have these key components (50)

1. **Research Component. (10 marks)**

* This is the background information that anchors your topic.
* Provide enough technical detail so that the rest of your project can be understood by a typical BTech student.
* Why did you pick this topic? Relevance? Aim and goals?

1. **Experimental/Hands-On Component. (35 marks)**
2. **Implement** an algorithm/model/application (15)
3. **Test and analyze** what you have implemented. For example, examine the performance. Discuss your test strategy. Include data or tables. (10)
4. **Results and Conclusion**: Depending on what you have done (survey, comparison, tutorial, research result etc.), give a summary, highlight main points of your study, discuss limitations and future work, tips and tricks, lessons learnt. (10)
5. **Bibliography/Reference (5)**

* You Final Presentations should include key points from above, given that you may still continue some work on it after the presentation day.

1. **Possible Topics:**

* Assembly efficiencies and algorithms.
* Comparison of assembly languages.
* Analysis of malware and vulnerabilities with assembly examples explained
* Investigate one of the many Native libraries for use in an Android App.
* Implement an Android app that uses NFC (usability, design, etc.)

1. **General Tips**

Things that I’ll be looking for:

* Clear, concise writing,
* Organized steps (if it is tutorial like)
* Great piece of work that can be published. Or post and portfolio!

Organization/format of your written submission.

* You can format your report like a research paper
* Or a tutorial/blog with enough content
* Professional, well organized

1. **Timeline and Submission Deliverables**

When you have decided on the topic in which you are interested, please discuss the topic with me. I will evaluate the proposal and work out a scope together with you. We will do this during lab time on Nov 14.

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| Date | Deliverable | Marks |
| Nov 14 | Decide on group members, perform initial brainstorm, decide on topic and possible scope. | /5 |
| Nov 21 | Project Update #1 (1-2 page)  Submit “Statement of Work”. This document includes a summary of:   * research component (breakdown of your topic), * experiment component (what needs to be done, proposed implementation, what you set out to test or compare or answer).   What have you done so far? | /5 |
| Nov 28 | Project Update #2 (1-2 page)  Submit “Implementation Details” update?  What you have you done so far?  What needs to be done next? | /5 |
| Dec 05 | 10 min (?) Presentations  (time TBD depends on # of groups)  Peer evaluation/Q&A  (optional, time permitting: final exam review) | /5  /5 |
| Dec 12 | (50 min final exam day);  Final project writeups due by midnight. | /50 |
|  | Total for Project | /75 |