SECTION6: RESEARCH SUPERVISION RECORD

***Full-time students - a minimum of 6 supervision records must be completed each year.***

*Part-time students – a minimum of 3 supervision records each year.*

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| **Name of Student:** Qian Hong |
| **Name of Department/Centre:** School of Computing Engineering and Physical Science |
| **Name of Supervisor present:** Platt. S. P. ; Mein. S.J. |
| **Title of Project:**   |  | | --- | | Semiconductor detector for fluence measurements in simulated cosmic-ray fields | |
| **Date/Time of Meeting:** 2013.11.27 |
| **Summary of activities since last meeting:**   * Collimator construction : does not go well * Detectors construction : 3 neutron detectors have attached; 3 gamma detectors have not attached * Source management : Git is installed and used for this project * Debugger failure : Failure reason has been found out. * Scientific Linux 6 with gcc 4.6x,64 bit has been installed on virtual machine VMware workstation * Manage the documents for monthly meeting : Monthly meeting PPT, report, Gantt Chart |
| **Comments by Supervisors: [Continue on separate sheet if necessary]**   * Make clear why LANSCE measure neutron flux at specific angle. We are interested in is only 0 degrees at ANITA, as well as 30 degree at LANSCE. LANSCE provides beamline in different angle (0, 15, 30, 60 and 90). TSL provides beamline in 0 degree. * Difference between collimator and shielding, where shielding is used to protect human being and electronic device to avoid radiation. The collimator is a device that narrow a beam of particles in which make motion direction become more aligned in a specific direction. The field size of the beam is decided by size of aperture of collimator. * Minimal working example method should be considered for collimator construction to validate the correctness of the model. * Scientific Linux 6 operating system seems good but not necessary for the project. * Output file format, csv format may not satisfy with our demands, especially for a large amount of data. Compare AIDA and ROOT (two analysis tools), ROOT seems better than AIDA.   **Supervisor’s Signature:**  **Date:** |
| **Comments by Research Student: [Continue on separate sheet if necessary]**   * At first, I think we need to consider neutron flux at LANSCE for different angle. We are getting agreement to measure neutron and gamma flux at LANSCE/TSL only in a specific angle. * I thought the collimator is to stops neutrons and lose energy through interactions. (Collimator concept ) * We are getting agreement with supervisor that to have test programming for collimator. * Scientific Linux 6 operating system is not necessary, good to try. We are getting agreement to not use it since time is limited for my PhD. * I considered that csv output may not a good choice for later use. We are getting agreement to use ROOT for analysing data.   **Student Signature:** Qian Hong  **Date:** 2013.11.28 |
| **Agreed plans for period before the next meeting**   * Collimator testing program should be considered for collimator construction to validate the correctness of the model. It will help to solve collimator construction problem. * Learn how to use ROOT for data analysis. |
| **Proposed date/time of next meeting:** 2013.12.11 |