



Taweap Sanghangthum: Thailand

Radiotherapy: Medical physics.



Mr. Taweap Sanghangthum is a Medical Physicist from King Chulalongkorn Memorial Hospital and a PhD student at Chulalongkorn University, in Thailand. He participated in a two-month fellowship through the International Atomic Energy Agency (IAEA) fellowship program. His project title was “Application of statistical process control to radiotherapy quality control.” Dr. Todd Pawlicki, Professor of Medical Physics and Clinical Operations in the Department of Radiation Medicine and Applied Sciences at the University of California, San Diego was Mr. Sanghangthum’s supervisor for the training. At his home institute, Mr. Sanghangthum is mostly responsible for radiotherapy treatment planning in advanced treatment techniques in both external beam therapy and brachytherapy. He also works in quality assurance (QA) in treatment machines and patient-specific IMRT and VMAT QA plans.

During his fellowship, Mr. Sanghangthum took part in both clinical and research work in Medical Physics. His clinical work was focused on the treatment planning techniques and QA of stereotactic radiosurgery and radiotherapy (SRS/SRT) using the frameless technique, and stereotactic body radiation therapy (SBRT) from True Beam linear accelerator. The training is very beneficial for his work to establish the guidelines of stereotactic techniques at his institute. For his research, he applied statistical QA tools from Industrial Manufacturing to Radiotherapy QA. He completed two papers during his IAEA fellowship; the first paper is “Retrospective analysis of linear accelerator output constancy checks using process control techniques”, and the other one is “On setting tolerance levels for process monitoring”. These two papers will be submitted into a well-known journal.

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