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YUDTHAPHON VICHAININ : INFORMATION SYSTEM DEVELOPMENT FOR
DOSE RATE AND TREATMENT TIME CALCULATION CASE STUDY : RATIO THERAPY
AND NUCLEAR MEDICINE UNIT IN RAMATHIBODI HOSPITAL. THESIS ADVISORS:
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The objective of this research was to develop an information system for dose rate and treatment time calculation in radiotherapy treatment of Cobalt-60 10X and Linac 6X and 10X in Ramathibodi's Radiotherapy and Nuclear Medicine Unit. The concepts of Unified Software Development Process and Unified Modeling Language (UML) were used for developing the Use Case Driven and Architecture-Centric to produce an iterative and incremental information system.

The results of this study demonstrate that an information system for dose rate and treatment time calculation increases work efficiency, and simplifies access and accurate calculation. The developed system was evaluated by groups of medical-physicists in the Radiotherapy and Nuclear Medicine Unit, Ramathibodi hospital. The results of the evaluation illustrate that the system offere an ease and pleasure to use, precise calculations and efficient works.