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Paperless physics laboratory course using the Blackboard resources.

Wednesday, 17 June 2015 14:00 (15 minutes)

Creating a paperless laboratory course does not only mean "going green" involving a friendly attitude to environment, but gives a lot of new opportunities in achieving additional learning outcomes. Among the other important advantages of the paperless course are reducing the lab report preparation time for students and optimizing the grading process for TAs/Lab Demonstrators. The paperless laboratory course can be run as a traditional lab course as well as a student-centered learning class. Despite a widely spread opinion that the Blackboard facility is inconvenient, slow working and often out of service, this facility has a number of smartly developed features that can serve the paperless course very efficiently. The report is based on the author's experience with introducing the paperless lab component to the 1st and 2nd year courses of Mechanics, Waves, Modern Physics, Quantum Physics and Thermal Physics at the University of Toronto in 2013 - 2015. The step-by-step lab report preparation, uploading, reviewing, grading and commenting are presented in detail with a demonstration of an example of a report going through the above listed stages. The specific learning outcomes are discussed. Students' and TAs' feedback obtained in regular surveys is presented and analyzed.

(5) Innovations in physics education.

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