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The design of a light-emitting-diode pulsing system for measurement of time-resolved luminescence

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**Abstract content (Max 300 words)
Formatting &
Special chars**

A new light-emitting-diode (LED) pulsing system for measurement of time-resolved luminescence will be presented. The system has been designed for use with a set of blue light-emitting diodes as the stimulation light source. The LEDs are pulsed at various pulse width by signals from a 555-timer wired as a monostable multivibrator. The output pulse from the 555-timer is fed into an N7000 MOSFET to produce a pulse current of 500 mA to drive a set of 16 LEDs. This amount of current is sufficient to drive four sets of 4 LEDs with each LED driven at a maximum pulse current of 110 mA. A multichannel scaler (Ortec MCS-plusTM) is used to trigger the pulsing system and to record data at selectable dwell times. The system is designed for use on wide band gap insulators.

**Apply to be
 considered for a student
 award (Yes / No)?**

Yes

**Level for award
 (Hons, MSc,
 PhD)?**

MSc

**Main supervisor (name and email)
and his / her institution**

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**Would you like to
 submit a short paper
 for the Conference
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yes

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