

## A Lighting Audit of The University of The West Indies St Augustine Campus

Darion Mohammed<sup>a,Ψ</sup>, Sanjay Bahadoorsingh<sup>b</sup>, Jason Dhun<sup>c</sup>, and Chandrabhan Sharma<sup>d</sup>

Department of Electrical and Computer Engineering, Faculty of Engineering, The University of the West Indies, St. Augustine, Trinidad and Tobago, West Indies;

<sup>a</sup>Email: darion.mohammed@gmail.com

<sup>a</sup>Email: Sanjay.Bahadoorsingh@sta.uwi.edu

<sup>a</sup>Email: Jason.Dhun@sta.uwi.edu

<sup>b</sup>E-mail: Chandrabhan.Sharma@sta.uwi.edu

<sup>Ψ</sup> Corresponding Author

(Received 30 June 2017; Revised 03 January 2018; Accepted 23 January 2018)

**Abstract:** *Many students and staff utilize the facilities of The University of The West Indies St. Augustine campus at night. Inadequate lighting can make the school environment unsafe. This paper documents methodologies and the results of an audit conducted on the campus. The audit was performed to determine the adequacy of the campus lighting. Areas audited were identified via a survey distributed to students of the campus. The illuminance levels were measured at these locations and compared to applicable standards of the Illuminating Engineering Society. The results confirmed that none of the areas evaluated satisfied the lighting levels detailed in the standards. Recommendations and implementation plans accompanied by cost-benefit analyses were developed for each area ensuring the standards are satisfied.*

**Keywords:** *Lighting audit, illuminance measurements, lighting designs, financial assessment, design simulation, implementation plans*