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Executive committee of the Physics Society invites you for the 30th talk of the **Physics Seminar Series**

Enhanced performance of Dye sensitized Solar Cells using metal oxide based nanomaterials

by

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Abstract

Among the different generations of solar cells, third generation based solar cells have the advantages of low cost, flexibility, simple fabrication techniques and its ability to work under diffused light conditions among several other aspects. Important fundamental operation principle of dye sensitized solar cells (DSSC) is excitation of the dye, which is absorbed to the semiconductor surface by lifting an electron from valence to conduction band, the generated electron is further transferred to the conduction band of semiconductor and further it will go through the external load and regenerate electrolyte at the cathode surface, where the oxidised dye also was recompensed.

Among the various parts of the DSSC, photoanodes play an important role in dye adsorption and electron transport. As modifying the photoanodes using different materials has an impact on the performance of the cell. Here in this presentation we are concentrating on basics of DSSC and influence of metal oxide Nano particles and Nano structures in the performance of the cells.

Venue: Mini-Auditorium, Dept. of Physics (2nd floor)

Date and Time: February 01, 2018 (Thursday), 12:00 -12:45

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