



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
ACADEMIC YEAR 2021-22 EVEN
Internal IEEE Seminar – Report

Title of the seminar	: “Smart Grid Security”
Date	: 25.03.2022
Resource Person	: Mr.J.Arokiaraj, AP/EEE, KCE
Beneficiaries	: EEE Faculty Members- 7
Venue	: EEE – Smart Classroom

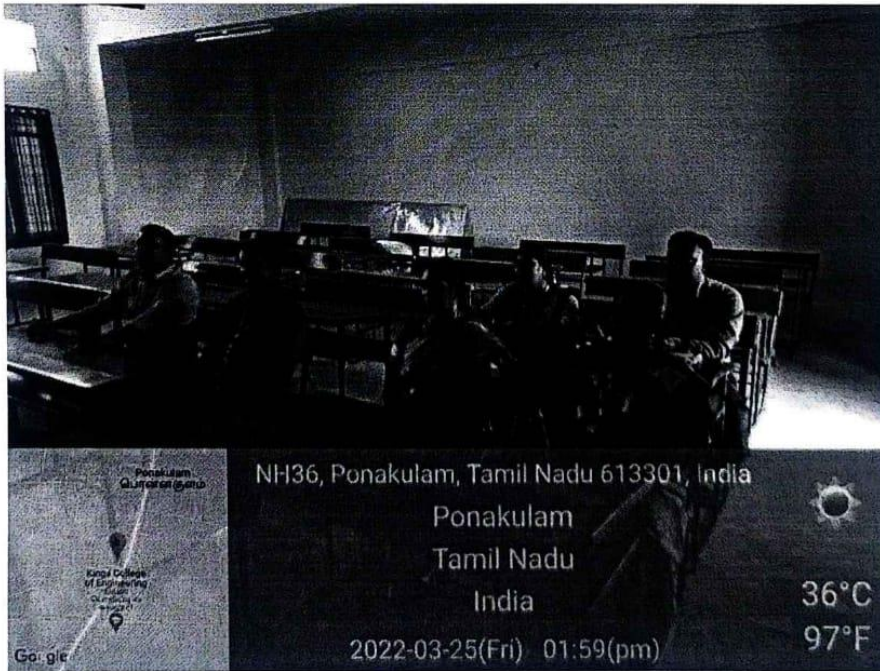
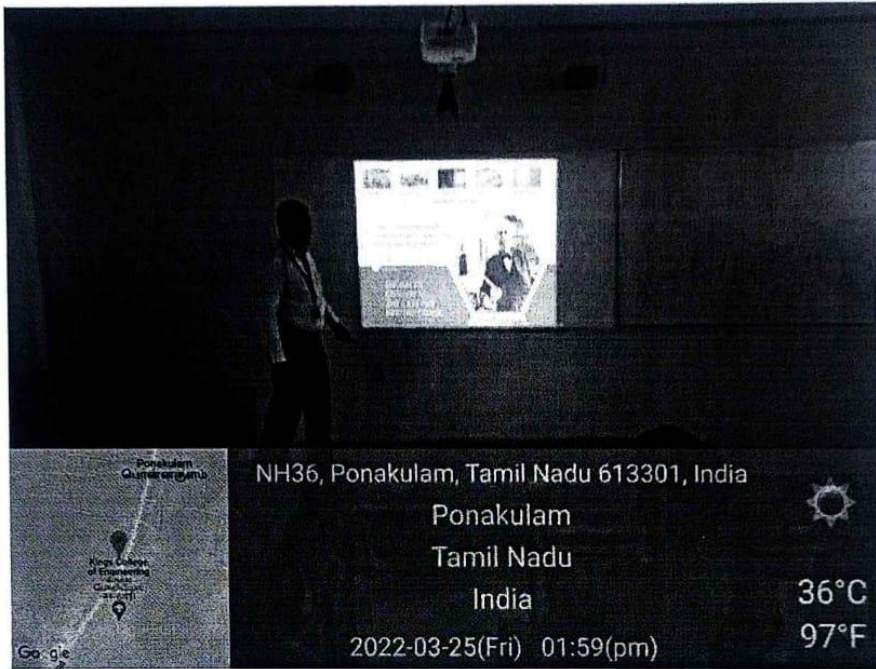
On behalf of Department of EEE, IEEE Branch has organized Internal Seminar on “Smart Grid Security” for faculty members; Department of EEE on 25.03.22 The main objective of the internal seminar is to provide exposure to various research areas to our faculty members.

The following points were discussed during the session:

- The traditional electrical power grid
- Perspicacious grid integrates the traditional electrical power grid with information and communication technologies (ICT)
- Highlighted the involution of the keenly intellectual grid network and discuss the susceptibilities concrete to this sizably voluminous heterogeneous network
- Domains of a smart grid
- Basic network architecture
- Attackers and types of attacks
- Challenges for new security solutions

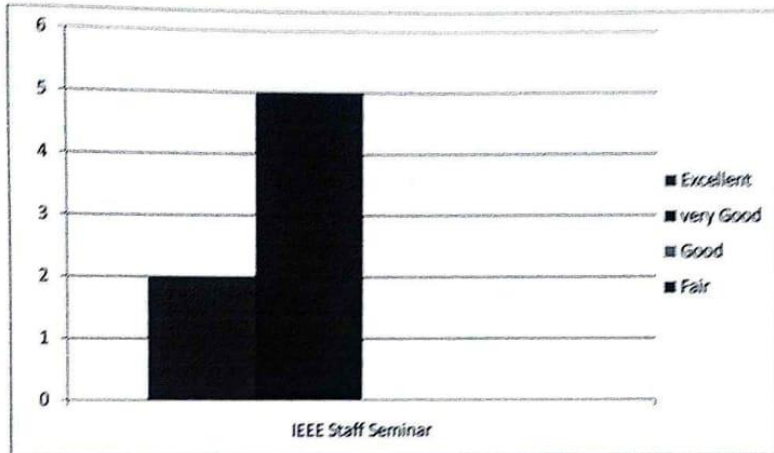
Conclusions:

Traditional power systems are moving towards digitally enabled keenly intellectual grids which will enhance communications, ameliorate efficiency, increment reliability, and reduce the costs of electricity accommodations. The massiveness of the astute grid and the incremented communication capabilities make it more prone to cyber attacks. Since the keenly intellectual grid is considered a critical infrastructure, all susceptibilities should be identified and adequate solutions must be implemented to reduce threaten to an acceptable secure level.



Snapshot from Seminar

Feedback Analysis:



References:

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2. H. Hu, Y. Wen, T.-S. Chua, and X. Li, "Toward scalable systems for big data analytics: A technology tutorial," *Access, IEEE*, vol. 2, pp.652-687, 2014.
3. C. Beasley, X. Zhong, J. Deng, R. Brooks, and G. Kumar Venayag-amoorthy, "A survey of electric power synchrophasor network cyber security," in Innovative Smart Grid Technologies Conference Europe (ISGT-Europe), 2014 IEEE PES, Oct 2014, pp. 1-5
4. D. of Energy and U. K. Climate Change, "Smart grid vision and routemap," Tech. Rep., 2014.
5. S. Uludag, s. Zeadally, and B. Mohamad, "Techniques, taxonomy, and challenges of privacy protection in the smart grid," *Computer Science, Engineering and Physics*, May 2015. [Online]. Available:<http://deepblue.lib.umich.edu/handle/2027.42/111644>

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