Center of Excellence in Smart Grid Technologies

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Objectives of Center of Excellence in Smart Grid Technologies

- Collaboration with Institutions and Industries in India and abroad.
- Design and Development of Smart Grid Technology Experimental Prototype.
- Capacity Development in Smart Grid Technologies through Research, Training Programmes, Conferences, Workshops and Seminars.

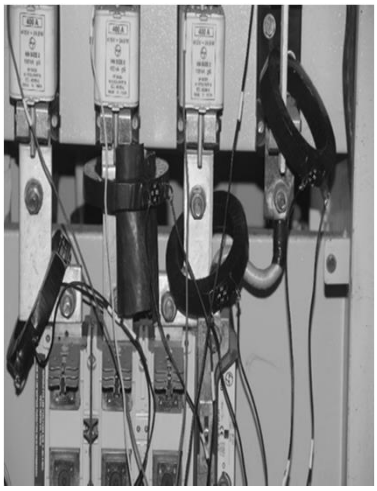
Challenges in Smart Grid Technologies

- Smart Grid Technology is an evolving domain with several factors are still not incorporated in design and implantation to address the practical operation and control issues.
- The regulations pertaining to smart grid technology in India are being framed by electricity regulatory commissions in India, modified from time to time and not yet standardized, hence Design of Smart Grid Set up is very much difficult in this scenario.
- The indigenous development of the smart grid technology is very limited and largely dependent on foreign companies based in technologically advanced countries.

Initiatives by CoE to Overcome the Challenges in Smart Grid Technologies

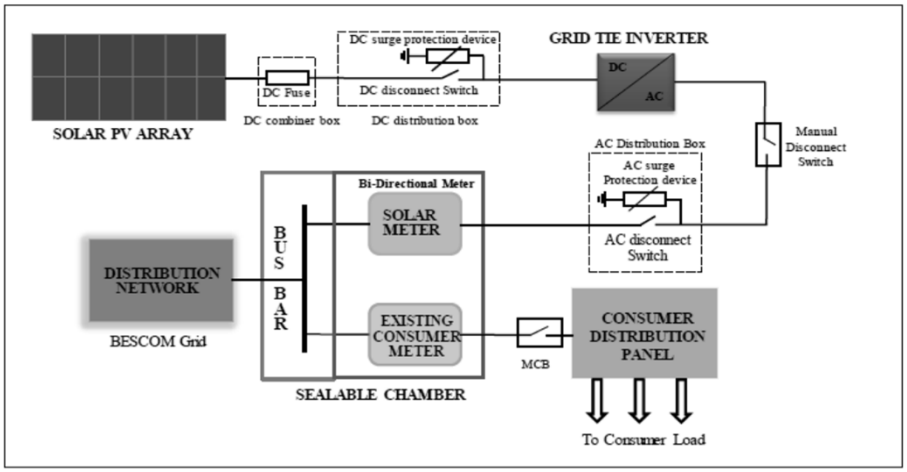
- Collaboration with Industries and Institutions of India and Abroad for Technology Updates.
- Design and fabrication of Smart Grid Experimental Prototype, which is useful as an unique set up to carry out research and analysis.
- To evolve with operational strategies which may be recommended for policy standardisation by regulatory commissions.
- The Design is focussed for indigenous development, in line with MAKE IN INDIA mission of the Government.
- The Training programmes are oriented towards SKILL INDIA mission of the Government.

Smart grid Monitoring System at NITK in Collaboration with Robert Bosch

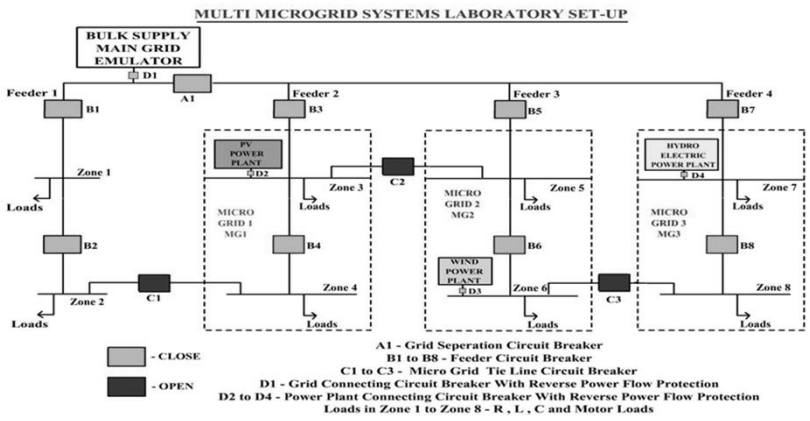


Collaboration with ABB, EPFL, DUKE, HEIG -VD

Design of Hybrid Solar Power Plant most suitable for India



Design of Multi Micro-grid Set-Up most suitable for India



Activities Completed and Plans up-to the end of March 2017

- Design of Experimental Set-ups conforming to present Regulatory Norms is completed, to promote indigenous development.
- The Procurement of the equipment and software as per the Design are in progress to the tune of Rs. 1.2 Crores out of the Rs. 1.5 Crores grant received.
- As the design is aimed for Indigenous development , the set –up is expected to be commissioned by February 2017.
- The Grants have been obtained by NITK through NEWTON –BHABA Project with United Kingdom is being utilised for CoE Activities and Training Programmes in the State of the Art Technology.

Thanking you for your kind attention!

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