Project expectations

- Update the existing test bench for a seamless prime mover coupled synchronous generator (SG).
- Upgrade the DC supply of the SG for active field flux control.
- Install appropriate sensors to measure field parameters and visualise power flow.
- Build safe installations for access through measurement devices and oscilloscopes.
- Design and build a synchronizing mechanism (e.g., three bulb method) for grid connection.

Figure 1: Synchronous generator setup in lab.
Requirements*

- Electrical engineering background with knowledge of synchronous machine design, operation and control.
- Prior experience in electrical workshops is preferable.
- Interested in hands-on projects and workshop tasks to build the test bench.
- Must be able to manage a variety of tasks within the same project.
- Must be able to work on your own without constant supervision.
- Good team-player and an attitude to learn.

*Multiple students can work on this topic at the same time as the project scope is wide

Contact

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