

We are a design-focused technology company, providing premium quality, customized, energy-efficient, Automation solutions at competitive prices. Our engineers have over 25 years of experience in providing Automation solutions. We have provided customized solutions to several educational institutions and different industries.

***Let us give you a few examples of some customized solutions provided by us:***

1) In underground mines, roof fall is a major cause of accidents throughout the world. The Govt of India had given a project to the mining department of IIT Kharagpur to come out with a system to predict roof fall in underground mines. Some of their Ph.D. scholars Mr. Nimesh Nirbhay and Mr. Jemish were working on this and the project was headed by the head of the Mining Department IIT KGP. Now they wanted a system that could record the stress developed in the roof of the underground mines and once in a while the PhD students would collect the data and bring it to their lab for analysis. We successfully designed and developed one such system for them, which could record 32GB of data on an SD card with date and time stamps. Our system had battery backup and USB connectivity for hooking up to a laptop for on-site analysis. After the success of the 1<sup>st</sup> system, they procured 2 more such systems from us.

2) Jadavpur University Electrical Engineering Department had purchased and installed solar panels, wind turbine, battery bank, and controller system from Synergy. They installed these for their smart classroom project. For the implementation of the smart classroom project, the Synergy energy management system needed to communicate with the individual controllers in the classrooms and also the changeover switches through Ethernet. Unfortunately, Synergy was neither providing the controllers for the classrooms nor the communication code, so that others could design the individual controllers for classrooms and make them communicate with the Energy management system installed by Synergy. My professor Dr. Anjan Rakshit, called us and asked for help. We

monitored the communication at the serial bus of the Synergy controller for several days and were finally able to decode the communication codes. We went on to implement the entire smart classroom project in the Electrical Engineering Department of Jadavpur University. The system is running successfully for more than 8 years now. In the same project we also successfully implemented powerline communication for a part of the project.

3) Swiss-o-tel of the Bengal Ambuja group has some beautifully decorated conference halls. The LED lights fitted on the roof of the hall are operating from a 24V DC bus. Mr. Shantanu Mukherjee of Saent India advised Mr. Bishnu Swaroop the head of the Engineering department of the Ambuja Group to approach us to develop a remote-controlled dimming system for the LED lights with preset scenes. They also wanted MODBUS connectivity and Master-Slave configurability between the different controllers located at different conference halls, so that they can be configured to operate both as stand-alone and Master-Slave as per requirement. We successfully designed, developed, and installed the system.

4) Swiss-o-tel also has Jacuzzi baths located in the high-end suites, they earlier purchased the controllers for the Jacuzzi from Taiwan. These were quite expensive and non-serviceable locally. Again, as per the advice of Mr. Shantanu Mukherjee of Saent India, Mr. Bishnu Swaroop requested us for a customized solution. We successfully designed, developed, and installed the systems.