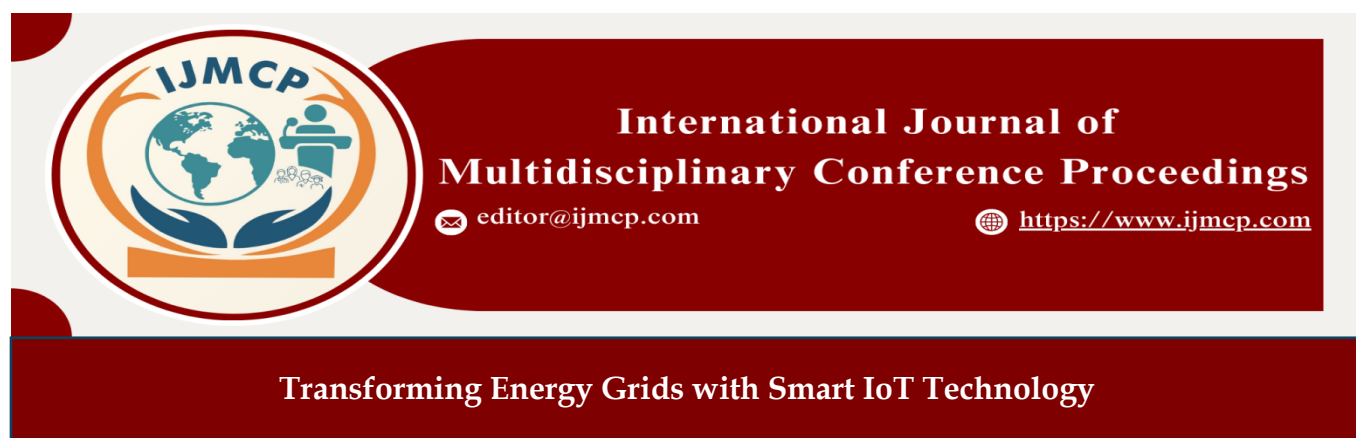




## Transforming Energy Grids with Smart IoT Technology

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| KEYWORDS                                                                                                            | ABSTRACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| IoT Based Smart Grid<br>Solution for Pakistani Market                                                               | <p>Today the world is pressing on the generation of clean and green energy resources, exploring new techniques and technologies in this sector to boost cost saving and to lessen the reliance on conventional energy resources, which are posing severe environmental hazards. On the same lines, focusing on the development of smart grids for improving the transmission and distribution infrastructures that is to maximize utilization of clean and green energy and reap the maximum benefits of this energy. In this endeavor of smartening the grid, adoption of IoT plays a crucial role. This paper explains an IoT based smart grid solution developed for distribution sites. This solution is a device placed at the pole mounted distribution transformer to smarten the grid by inducing automation and enhanced communication between the different sites of the electrical grid, while introducing a control center. This device is capable of detailed monitoring of the pole mounted transformer's functioning and implementing timely preventive and corrective actions to reduce failures and breakdowns at the site. With its built-in intelligence it takes prompt actions to safeguard the site equipment against probable failure and communicate to the control center SCADA for future actions and improvement plans. Hence improving the user experience and saving the cost of maintenance to the utility.</p> |
| ARTICLE HISTORY                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Date of Publication:16-04-2025                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Conference Organizer(s)                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Research Consultancy on<br>Social & Management<br>Development<br>&<br>University of Karachi<br>DHA Suffa University |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| Volume-Issue-Page<br>Number                                                                                         | 2(1) 36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Citation                                                                                                            | Alvi, F. (2025). Transforming Energy Grids with Smart IoT Technology. <i>Proceedings of the 1st International Conference on Innovation and Sustainability in Management and Social Sciences</i> , *International Journal of Multidisciplinary Conference Proceedings, 2(1).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |