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Advancement in Renewable Energy Technology

Ms. Namrata Ravindra Shardul, Ms. Mansi Vinod Lambole, Ms. Kasturi Vikas Borate
Ms. Anushka Vikas Sabale, Ms. Vaishnavi Dnyaneshwar Ingle
Guru Gobind Singh Polytechnic, Nashik, Maharashtra

Abstract: *This article examines some of the latest findings in the exploitation of renewable energy sources (RES) for sustainable development. It outlines some of the latest findings at the system level – e.g., local systems, community systems, and assemblies of buildings – as well as some of the main components in future renewable energy systems. This includes solar technologies, where particular attention is given to the cooling of photovoltaic panels to improve conversion efficiency. Hydrogen – in one way or the other – will play a role as a storage medium or as a means of electrifying otherwise hard-to-electrify sectors. Bioenergy is a valuable but restricted source in the energy system, hence different processes are investigated to optimize the use of different biomass waste streams. Lastly, wind power is addressed as one of the key constituents of future renewable energy-based energy systems.*

Keywords: renewable energy sources