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atmospheric (haze) attenuation and scintillation attenuation.

P-314 Solid Waste Generation Characteristics in Some Selected Local Authorities of Malaysia

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The large and increasing amounts of municipal waste (MW) generated each year in several industrialized countries have raised concerns about the economical viability and environmental acceptability of the current generation activities. The planning of an optimal regional waste management strategy requires a reliable tool for predicting the amount and the corresponding composition of MW that is likely to be produced. Further, to carry out integrated solid waste management, direct and indirect participation of local governmentâ€™s authority is essential. This paper focuses on the existing waste management characteristics of a selected local authorities in Malaysia, evaluate the situation and forecast for the future. As a case study, we have considered three local authorities in Selangor State, namely Selayang Municipal Council, Klang Municipal Council and Subang Jaya Municipal Council. This research discusses the concerns about environmental effects associated with solid waste as well as the escalating costs that solid waste consumes from the budget of a local authority.

P-322 Study of the Effects of EDM Parameters on Material Removal Rate, Electrode Wear Rate and Surface Roughness in the EDM of S-Star

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Die-Sinking EDM is one of the most versatile non-traditional methods of machining for producing parts of complex and intricate geometry as well as being able to machine hard and super-tough material. Nevertheless, EDM has a lot of independent variables to be controlled in order to get optimized machining conditions. This project presents a study on the effects of three electrodes (i.e. Copper, Chromium and Brass) on machining characteristics material removal rate (MRR), electrode wear rate (EWR) and surface roughness (SR) during the EDM of S-STAR. Results obtained from the investigation are reasonable compared to related work done by other researchers.

P-324 Stability Characteristics of Water-Carbon Nanotube (CNT) Dispersion using Carboxymethyl Cellulose (CMC) as Surfactant

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The study of nanofluids lately gained importance in scientific community, due to their enhanced thermal conductivit and heat transfer coefficient, which is expected to significantly improve the performance of heat transfer equipments. Nanofluids are dispersion of nanosized particles in a base fluid such as water,ethylene glycol and oil. Especially, carbon-nanotube(CNT)-water dispersion find potential applications as heat transfer fluid in automobile and aircraft engines, and also in nuclear reactors which involve high heat throughput, and therefore need for efficient heat removal. The main focus of current research on nanofluids has been to obtain a stable dispersion of CNT in water since the CNT has tendency to agglomerate and settlle down. Recent researchers have tried various techniques to obtain stable dispersion such as functionalization, sonication and use of surfactants. Current literature show that different surfactant such as gum arabic, sodium dodecyl sulphate (SDS), Triton-X etc. have been used to obtain stable aqueous CNT dispersion . In the present study, we have used carboxy methyl cellulose (CMC) as the dispersion agent together with sonication to obtain stable aqueous CNT dispersion. Aqueous CNT suspension with different CNT and CMC concentrations were sonicated for varying