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| Paper Id: 180 | Title: "Machine Learning for Operation Of Motorized/Engine Driven Concrete Mixture." |
| Authors : | Karam Ramesh Singh, Nikhil Suresh Rao Surkar, Mehvish Zabeen, Kamlesh Dayanand Patle, Prof. Supriya Sawwashere |
| J D College of Engineering and Management Nagpur, India. | |
| <p>Abstract: Numerous issues with concrete mixing in concrete mixture machines have been observed. Engineers and labourers are unsure whether the concrete was mixed properly or not; they can only speculate and make predictions after observing the concrete. However, there are situations when the concrete is not mixed properly and the ratio is not maintained during the mixing process. In a difficult, multi-step process called concrete mix design, we look for the ideal ratio of materials to produce concrete that performs well. There are various techniques for designing concrete mixes, however The Three Equation Method-based techniques are the most widely used. Compressive strength, which establishes the concrete class, is one of the most significant characteristics of concrete. Concrete structures must have predictable compressive strength, which also serves as the foundation for their durability and safety. Machine learning has recently attracted a lot of attention, and the prospects for this technology in the future are very bright. Since machine learning algorithms have advanced to the point that they can recognise patterns that are challenging for humans to recognise using their cognitive faculties, data mining on large datasets of data has gained attention. we will utilise the machine learning techniques for concrete mix design in our project.</p> | |

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| Paper Id: 181 | Title: Rain Detector Sensor |
| Authors : | Chandraj Behare, Divyanshu Bhakta |
| <p>Abstract: This work focuses on using rain sensor, and it can be used in both everyday life and manufacturing. The ultimate goal of this project is to detect rain using a rain sensor. We used a555 IC, which works like a timer, sending a pulse as its signal, which is then read by the buzzer. Everyone's life revolves around water. Water conservation and good use are important. Here is a simple project that will sound an alarm when it rains, allowing us to take action to gather rainwater and store it for later use. We can increase the groundwater level with the aid of underwater recharge technologies by saving this rainwater and using it. When the rain detector senses rain, it sounds an alarm. The desired result was achieved in various aspects of using rainwater detectors in irrigation, home automation, electronics, vehicles, and other fields. Here is a low-cost rainwater detector circuit that is simple and effective.</p> | |

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| Paper Id: 182 | Title: "Design of Electric Power Harvesting Mechanism Using Impact Load Of Vehicles Over Road Speed Breaker." |
| Authors : | Shilpa Gajbhiye, Amit pipershare, Samir Rahangdal, Tushar Funde |
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| <p>Abstract: India is a developing country; India has been experiencing a second energy/power during the pandemic. Demands for various facilities and resources will rise as the population grows, and this trend won't cease with this generation. In this project, we are working on a model that will convert the mechanical energy of a moving vehicle into electrical energy. According to the law of thermodynamics, "energy cannot be generated or destroyed, but it can shift from one form to another." Every living or non-living body has some kind of stored potential energy same as in the case of a vehicle, the vehicle has some kind of potential energy. When the vehicle moves the potential energy gets converted into kinetic energy when a vehicle passes over a speed breaker, the speed breaker will get pushed in a downward direction and it will start the initial process of mechanism i.e., vertically attached piston rod will perform up and down motion also spring is attached with it, this rod will rotate along Y-axis and due to which another half curve rod attached perpendicular to the piston rod will get rotate along X-axis. Further, the rod is attached to a gearbox which converts low rpm input to high rpm output. A DC motor is attached at the end of the mechanism which converts mechanical energy into electrical energy. In this way, this mechanism will create energy.</p> | |