**Electromagnetic Braking(EB)**

**HW 2**

**Review of various EB system**

Sumit Patel conducted the experiment for the working of the various types of braking system and concluded that Eddy current braking system is much more effective than the conventional braking system. Sumit Patel and his colleagues also performed an experiment yielding in to stopping time for the wheel at various RPMs. This experiment showed us the simplicity in application of the electromagnetic braking system. They proved all limitations of the Conventional braking system can be overcome by using of electromagnetic braking system such as no contact between the braking system and the rotating object, Less heat dissipation during the process and material friendly system.

M.Z Baharom conducted this experiment for different types of rotating materials as discs using the same principle as that of the Eddy current braking system model. He and his colleagues also performed and experimental setup and plotted graphs of speed vs current for the different materials such as Aluminum, Copper and Zin. They concluded that Aluminum is the best material to be used as a brake disc when compared to copper and zinc as it produced highest deceleration rate among the materials used. They have also performed the braking torque analysis with respect to current for the above materials to calculate the torque generated in the disc due to the currents.

**References**

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[2] M.Z. Baharom, M.Z. Nuawi, G. Priyandoko, S.M. Harris, ’Electromagnetic Braking System using Eddy current for brake disc of Al6061 and AI7075’, International Review of Mechanical Engineering.