

Department : **Mechanical**

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Group No: **12**

Guided By

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Project Title

**MODIFICATION AND DEVELOPMENT OF WIRE ELECTRICAL
DISCHARGE MACHINING AND ADDING ROTARY AXIS FOR
CYLINDRICAL MACHINING**

Abstract:

Electro discharge machining process is based on the disintegration of the dielectric and the current conduction between the job and the workpiece by electric discharge. This process is also known as the Electro Erosion process/ Electro spark machining. In this method job and the workpiece are separated by a certain gap filled with a dielectric medium. Depending upon a micro deregulation of tool and workpiece surfaces and the presence of carbon and metal particles, the dielectric is broken down at several points producing ionized columns which allows a focused stream of electron to flow and produced compression shock waves and there is an intense increase in local temperatures. Due to combined effect of these two particles of metal are thrown out very much similar to the boiling out of water. As erosion progresses the gap changes and that gap is continuously maintained by the servo mechanism.

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