



**Akhil Bharatiya Maratha Shikshan Parishad's
Anantrao Pawar College of Engineering & Research**



Record No.: ACA/D/008B

DoI: 21/01/2019

Revision: 00

Industrial Visit Report

1. Visit Place (Address): Ratnaparkhi Electronics Industries Private Limited, Nashik.
2. Visit Date: 21 March 2019 Course and Year:- Microcontroller 2019
3. Contact Person Details: Mr. Ulhas Deshpande
4. Organized By:- Prof. Vikram R. Ghiye
5. Industrial Visit under subject: Microcontroller
6. Brief Report:-

• **About Ratnaparkhi Electronics**

Established in the year 1989, we, "Ratnaparkhi Electronics Industries Private Limited", are proficient manufacturing and supplying of technologically advanced CNC Wire Cut EDM and EDM's. The machine offered by us run on advanced technology and is highly durable. Their other product includes PEDM-drill cum tap remover, Custom built Testing Trolleys, Milivolt drop test and current injectors, diode assembly, under voltage drop release device, Heater monitoring Device, Rectifier Units, Capacitor Trip Device, etc.

• **Production**

Electrical discharge machining (Wire cut Machine)

Electrical discharge machining (EDM), also known as spark machining, spark eroding, burning, die sinking, wire burning or wire erosion, is a manufacturing process whereby a desired shape is obtained by using electrical discharges (sparks). Material is removed from the work piece by a series of rapidly recurring current charges between two electrodes, separated by a dielectric liquid and subject to an electric voltage. One of the electrodes is called the tool-electrode, or simply the "tool" or "electrode," while the other is called the work piece -electrode, or "work piece." The process depends upon the tool and work piece not making actual contact.

When the voltage between the two electrodes is increased, the intensity of the electric field in the volume between the electrodes becomes greater than the strength of the dielectric (at least in some places), which breaks down, allowing current to flow between the two electrodes. This phenomenon is the same as the breakdown of a capacitor (condenser) (see also breakdown voltage). As a result, material is removed from the electrodes. Once the current stops (or is stopped, depending on the type of generator), new liquid dielectric is usually conveyed into the interelectrode volume, enabling the solid particles (debris) to be carried away and the



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insulating properties of the dielectric to be restored. Adding new liquid dielectric in the inter-electrode volume is commonly referred to as "flushing." Also, after a current flow, the difference of potential between the electrodes is restored to what it was before the breakdown, so that a new liquid dielectric breakdown can occur.

Types

- Wire-cut EDM
 - Sinker EDM
 - Wire EDM
 - Fast hole drilling EDM
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- Visit Schedule: 21st March 2019, 10AM.
 - No. of Students attended the Visit: - 10.
 - Name of the staff attended the visit :- 03

Date: 09th - April-2019

Prof. Vikram R. Ghiye
Visit In charge

Prof. Shailesh S. Hajare
Head of the Department



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