

“EXPLOSIVES AND THEIR MILITARY AND NON-MILITARY APPLICATION”

By



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A talk on the topic “*Explosives and their Military and Non Military Application*” was delivered by Dr. Suresh G Kulkarni on 16th September 2019 as a Departmental Forum Activity.

In the talk he spoke about types of explosion which include mechanical, nuclear and chemical. He mainly spoke about the applications of these explosives in various field. He started his session by giving a brief introduction on missiles and its requirements. He gave details about the substances which are explosives like peroxides/ozonides, chlorates/perchlorates, nitro azides fulminates acetylides halides of nitrogen organometalic etc.

He gave the classification of explosives and explained about the type of explosives used in different military applications. Nature of military explosives compounds include compounds of carbon, hydrogen, nitrogen and oxygen arranged in a

particular sequence like C-H-N-O where C-H are Fuel Elements, O is oxidizer N is binder/Bridge between fuel and oxidizer.



Talk by Dr. S G Kulkarni

He explained about the role of nitrogen in explosives which includes acting as a bridge between fuel and oxidizer imparts explosive property in the form of ‘nitro’ (NO_2) group on initiation, nitrogen is knocked off and comes out as N_2 gas which contributes to gaseous output as well as heat of explosion nitrogen in the form of ‘amino’ group (NH_2) imparts heat resistance / improved stability nitrogen rich compounds – emerging as new insensitive yet powerful high explosives.



Classification of Explosives



A token of appreciation was awarded by Prof K V Suresh