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DEPT. OF SCIENCE AND HUMANITIES
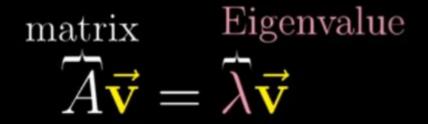**F.Y. B. TECH. SEMESTER –I (2020-21)**
APPLIED MATHEMATICS-I
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SOMAIYA
VIDYAVIHAR UNIVERSITY
K J Somaiya College of Engineering

Somaiya
T R U S T

NAME : Arya Nair
ROLL NO. : 16010421063
DIV:IT G   BATCH: G3

APPLICATION OF EIGENVALUES AND EIGENVECTORS IN OIL EXTRACTION

Oil companies frequently use the mathematical model of Eigenvalue and Eigenvectors to help search for probable reserves of Oil. They use the concept that the waves change when they move through different materials in the ground. The analyses of such data help to get an estimate of the location of probable Oil reserves.

$$\text{matrix } A\vec{v} = \text{Eigenvalue } \lambda \vec{v}$$

The Oil companies use Specialized Large trucks to create Vibrations in the ground. The Probes are placed around the site to pick up the waves due to Vibration. The data gathered from these help in finalising the site of reserves.

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