# 3.2.2 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during the year

Sr. No.	Name of the teacher	Title of the book/chapters published	Title of the paper	Year of publication	ISBN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
1	Dr. Harish Harsurkar	Engineering Mechanics	Engineering Mechanics	2024	978-93-6132-709-4	SPPU	Scientific International Publishing House
2	Prof. Husain Shaikh	Engineering Mechanics	Engineering Mechanics	2024	978-93-6132-709-4	SPPU	Scientific International Publishing House
3	Prof. Tanuja Hulavale	Engineering Mechanics	Engineering Mechanics	2024	978-93-6132-709-4	SPPU	Scientific International Publishing House
4	Prof. Poonam Phopalkar	Engineering Mechanics	Engineering Mechanics	2024	978-93-6132-709-4	SPPU	Scientific International Publishing House

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ENGINEERING MECHANICS
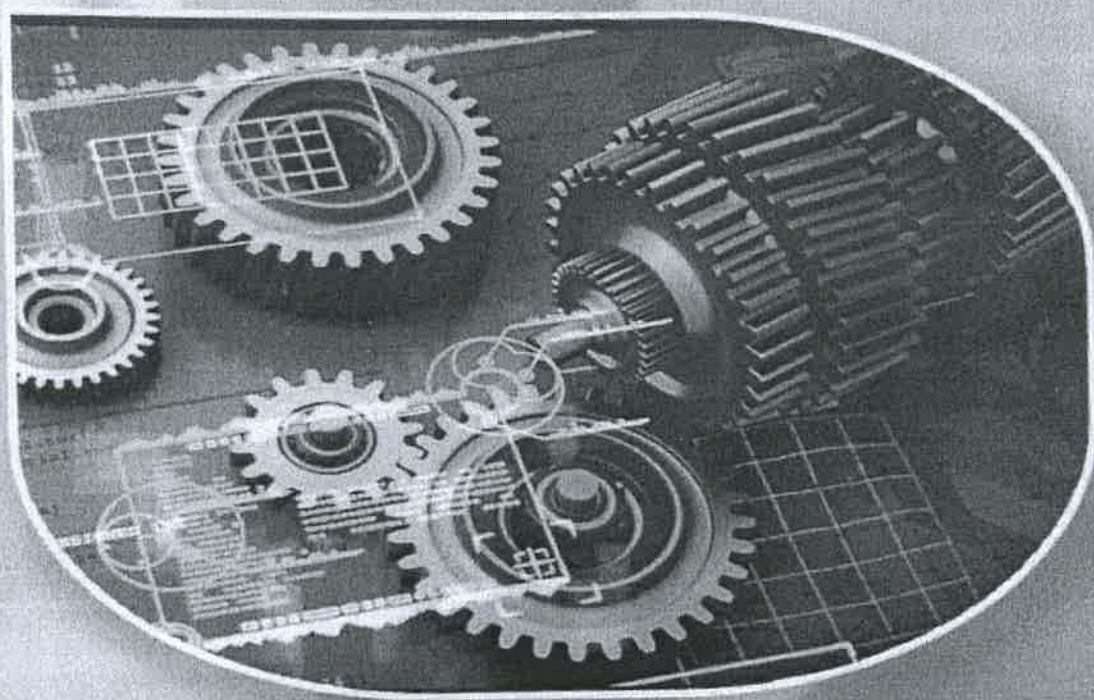
Dr. Harish Harsurkar
Prof. Husain Shaikh
Prof. Tanuja S. Hulavale
Prof. Poonam Arvind Pophalkar

SIPH

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FIRST EDITION

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Prof. Poonam Arvind Pophalkar.

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This book is dedicated to my Daughter (HariPriya Harsurkar), whose support for my research and writing has been quite phenomenal and special thanks to my parents.

Dr. Harish Harsurkar

This book is dedicated to my parents, my Wife and my Kids (Zain & Hamza), whose support for my research and writing has been quite phenomenal.

Mr. Husain Shaikh

This book is dedicated to my parents, family members and my departmental colleagues, whose support for my research and writing has been quite phenomenal and special thanks to my sister (Ms. Dhanashree Hulavale).

Ms. Tanuja S. Hulavale

This book is dedicated to my parents, family members, my teachers and my colleagues, whose support for my research and writing has been quite phenomenal.

Ms. Poonam A. Pophalkar

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CHAPTER I

FUNDAMENTALS OF ENGINEERING MECHANICS

1.1. Fundamentals

Engineering Mechanics

Mechanics is that branch of physical science which deals with the action of forces on material bodies. Engineering Mechanics, which is very often referred to as Applied Mechanics, deals with the practical applications of mechanics in the field of engineering. Applications of Engineering Mechanics are found in analysis of forces in the components of roof truss, bridge truss, machine parts, parts of heat engines, rocket engineering, aircraft design etc.

1.2. Divisions of Engineering Mechanics

The subject of Engineering Mechanics may be divided into the following two main groups:

1. Statics and 2. Dynamics.

Statics

It is the branch of Engineering Mechanics, which deals with the forces and their effects, while acting upon the bodies at rest.

Dynamics

It is the branch of Engineering Mechanics, which deals with the forces and their effects, while acting upon the bodies in motion. Dynamics may be further subdivided into the following two branches:

1. Kinematics
2. Kinetics

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