

AN OVERVIEW OF BIOMEDICAL APPLICATION OF COMPOSITE MATERIALS

**RAJESH PUROHIT¹, PRAMOD SAHU², ASHUTOSH KUMAR JHA³,
ANIL KUMAR DAS⁴, CHIRAG GUPTA⁵,
DEEPAK KUMAR⁶, PRAMOD KUMAR SHAH⁷**

¹Associate Professor, Mechanical Engineering Department,
Maulana Azad National Institute of Technology, Bhopal , India.

²Engineer, Air India Limited, New Delhi ,India.

^{3,4,5,6,7}MPAE Department, Netaji Subhas Institute of Technology, Sector-3, Dwarka, New Delhi,India.

ABSTRACT

The last two decades witnessed unprecedented application of composite materials in various biomedical applications. In this paper, an overview of these applications is presented. For the benefit of the readers, general information regarding structure and function of tissues, types and purpose of implants/medical devices, and various other materials used, are also briefly described. Different types of composites that are already in use or are investigated for various biomedical applications are also illustrated. The paper highlights the specific advantages of using composite biomaterials in selected applications and examines the critical issues and scientific challenges that require further research and development of polymer matrix composite materials for their increased acceptance in the biomedical industry.

KEYWORDS : Composite material, implants, prostheses.