## "BIOMECHANICS - MOVEMENT STUDY OF HUMAN BEINGS"



Mr. S. V. Shelge
Assistant Professor,
Department of Mechanical Engineering,
VPKBIET, Baramati.

The term biomechanics combines the prefix *bio*, meaning "life," and the field of *mechanics*, which is the study of the effects of forces. The forces study includes both the internal forces produced by muscles and the external forces that act on the body. The international community of scientists adopted the term biomechanics in the early 1970s to describe the science involving study for mechanical movement of living organisms.

Biomechanics plays an important role in the understanding of the fundamental principles of human motion. The study of both biology and physical mechanics to understand human movement better and to learn more about ways humans can move well and with less chance of being injured. Biomechanics uses techniques including mathematical modeling, computer simulations, and measurements. The study of biomechanics is important while determining what causes injuries and therefore how we can prevent them re-occurring. Physiotherapists are professionally trained to detect biomechanical faults which can predispose you to injury. So by studying how the human body naturally wants to move we can remove stress and pressure on the bones, joints, muscles and ligaments. This results in improved athletic performance reduced injuries and heightened general well being and helps to eliminate muscle imbalances.

Biomechanics is the tool that understands human movement and has also become highly popular amongst sports athletes, as it is used to enhance athletic performance and prevent injury too.