

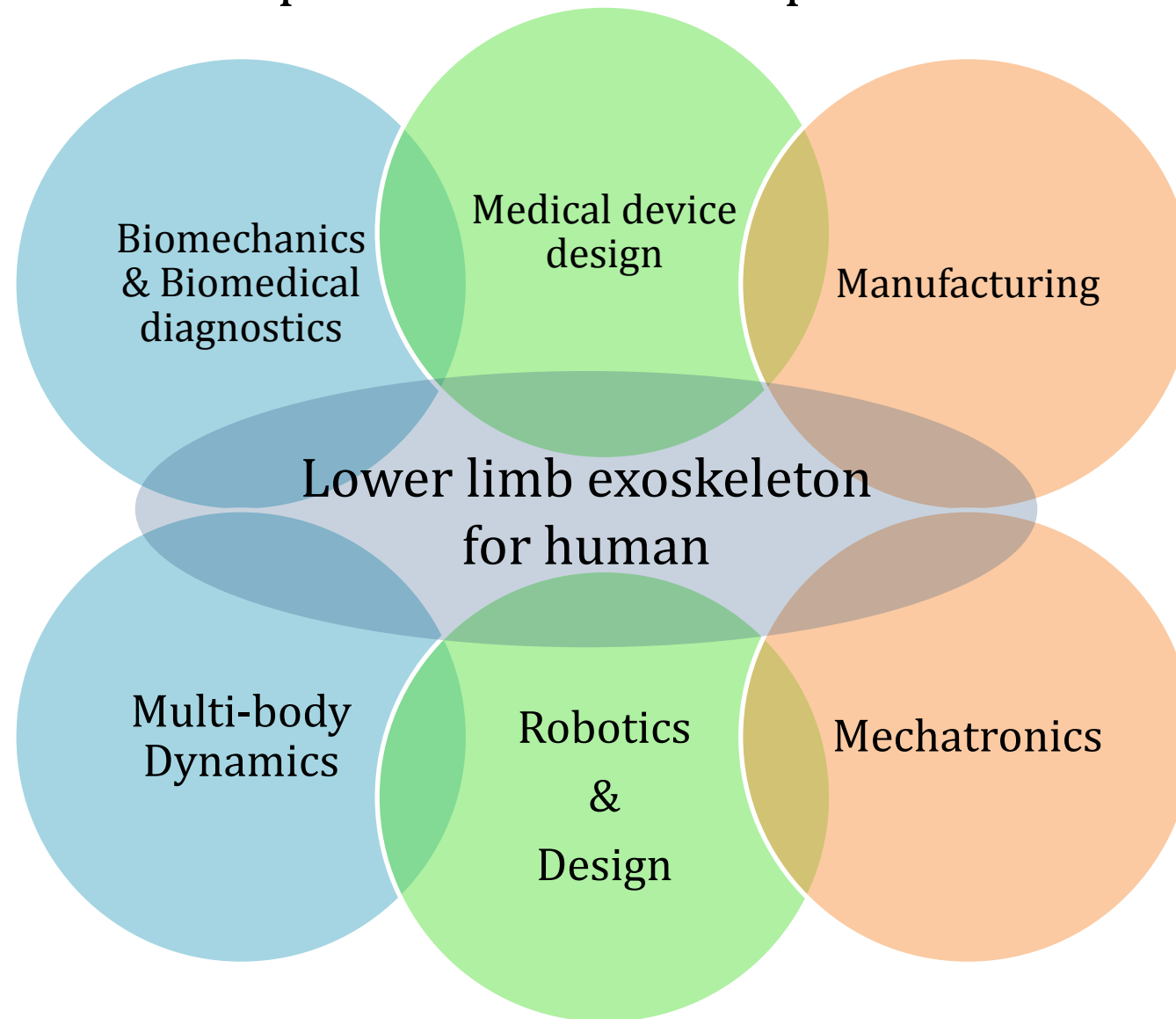
Supervisor Research Expertise



Dr. Dinesh Kalyanasundaram
Centre for Biomedical Engineering



Prof. Subir Kumar Saha
Dept. of Mechanical Engineering



Abhishek Singla
M.Tech in Production engineering

Need:

Occupations such as military personnel, fire fighters, miners, factory workers, healthcare workers involve continuously standing, walking, kneeling, squatting or sitting for long duration. Due to the longer, physically demanding work hours, the aforementioned groups have increased probability of lower limb musculoskeletal disorders such as ankle sprains, Knee bursitis, Peroneal tendon tear, Osteoarthritis, stress fracture, Achilles tendinopathy, varicose veins etc.

Proposed solution:

Therefore, the aim of the project is to manufacture an active lower extremity exoskeleton to prevent musculoskeletal disorders such that the capability of a worker can be enhanced working in a zone of common risk factors. This lower extremity exoskeleton also has applications in rehabilitation following trauma or surgery.