



ABOUT

- Dedicated, hardworking, passionate Mechanical Engineering undergraduate skilled in project management, steering system design, 3D modeling, and simulation software, eager to contribute effectively.

PROJECTS

Reverse-Engineering of a Floodlight

(Semester 04 group project – Manufacturing Engineering)

- Conducted reverse-engineering of a floodlight to analyze design, structure, functionality, and manufacturing processes, disassembling components to assess dimensions, materials, and methods for improvement. Proficient in SolidWorks for part modeling, production drawings, assemblies, and animations.

3D-modeling of a simple rack and pinion steering system


- Designed and assembled a rack and pinion steering system for an automobile using SolidWorks, advancing skills in advanced design, assembly techniques, and the SolidWorks design library.

Smart-waste Management System


(Semester 02 group project – Fundamentals of Mechatronics)

- Developed an automated system featuring waste classification, compression, and sealing units.
- Implemented Arduino-based machine learning and image processing for operational efficiency.
- Utilized IoT for real-time waste monitoring and data storage in DynamoDB.
- Applied skills in manufacturing, mechanisms, machine design, and modeling for system integration.
- Technologies Used: Image Processing, IoT, AWS DynamoDB, Arduino, Python, C++

CONTACT DETAILS

 <https://www.linkedin.com/in/deconkelaart-7171b81b3/>

 deconkelaart@gmail.com

 +94767212969

PERSONAL PORTFOLIO

- <https://decon123.github.io/deconkelaart.github.io/>

EDUCATION

- St.Peter's College, Colombo 04
- BSc (hons) undergraduate in Mechanical Engineering at University of Moratuwa

TOOLS

- AutoCad
- SolidWorks
- SolidEdge
- Ansys
- MatLab
- C++, HTML, CSS, JavaScript, Python, React
- Office 365, Miro, Spreadsheet software

VOLUNTEERING EXPERIENCES & COMPETITIONS

Department Representative semester 04 & 05

- As the student representative for Mechanical Engineering, Batch '21, I demonstrated exceptional leadership, communication, and collaboration skills.
- Successfully organized MECHANIZED'24, managing project initiation, proposals, budgeting, logistics, marketing, and cash flow, ensuring a successful and entertaining event.

UMMES Editor

- Successfully planned and executed a 3-day movie fest and a profitable t-shirt fundraising campaign for the Mechanical Engineering Department, managing permissions, venue booking, design, vendor selection, order forms, cash flow, distribution, and social media marketing, resulting in significant profits for the society's initiatives.

IEEE SB Volunteer

- Experienced in sponsorship cold calling, team-handling, financial accounting, and proposal writing.
- Engaged in team volunteering for various projects, including IEEEEXTREME 17.0, NFB Championship, Mora UXplore 2.0, and Rise Up Mora 1.0.

Logisitcs Team Member EXMO 2023

- Collaborated on fabricating a robot-face thorana using sheet metal drawings and 3D models, and managed traffic and crowd-handling for smooth exhibition operations with clear team communication.

GENESIZ 2023 Competition

- Participated in GENESIZ 2023, competing in coding, Arduino programming, and idea pitching challenges, and achieved 4th place out of 8 finalists, demonstrating strong teamwork and presentation skills with team RobotX007.

SKILLS

For Project Management

Team leadership, Budgeting,
Strategic planning and execution, Fund raising,
Marketing strategies, Proposal writing,
Effective communication, Time-management

For sub systems

Mechanical Engineering Principles,
Dynamics Analysis,
Kinematic Analysis, CAD modeling skills,
Simulation skills, Time-management,
Hard-work, Team-collaboration

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