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**ENGINEERING ETHICS & ENTREPRENEURSHIP:
A GROUNDED THEORY BASED STUDY AMONG
ENTREPRENEURIAL ENGINEERS IN SRI LANKA**

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Degree of Doctor of Philosophy

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Thesis/Dissertation submitted in partial fulfillment of the requirements for the degree
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DECLARATION

I declare that this is my own work and this thesis/dissertation does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any other University or Institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text. I retain the right to use this content in whole or part in future works (such as articles or books).

Signature:

Date: 18/07/2025

The above candidate has carried out research for the PhD thesis/dissertation under our supervision. We confirm that the declaration made above by the student is true and correct.

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Date: 18/07/2025

Signature of the supervisor:

Date: 18/07/2025

DEDICATION

-To all who work tirelessly for the common good of the world in their life journey-

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ABSTRACT

Ethical considerations are integral to the work of entrepreneurial engineers, whose innovations and decisions frequently carry significant societal implications. This study explores how Sri Lankan entrepreneurial engineers as a group of technology entrepreneurs adhere to engineering ethics, the challenges they face, and the strategies they employ to uphold ethical principles in their techno-entrepreneurial ventures. Addressing a significant gap in the literature, the research employs a constructivist grounded-theory methodology, drawing on face-to-face interviews with a purposive and theoretically selected sample of 22 entrepreneurial engineers. The findings reveal that most entrepreneurial engineers perceive engineering ethics as a "guideline" for ethical business practices, navigating a business environment populated by stakeholders and competitors characterized as "ethical-unethical colleagues." They also encounter an "avaricious society" that presents numerous ethical challenges during their entrepreneurial journeys. To adhere to engineering ethics, the participants adopt a tripartite strategy involving internalization, employee engagement, and public outreach. The consequences of these practices include "lasting benefits" and "short-term losses," ultimately contributing to the "enduring prosperity" of their firms. This study introduces the substantive theory called "theory of enduring prosperity", illustrating how adherence to engineering ethics fosters long-term business sustainability in the Sri Lankan context. The findings suggest that entrepreneurial engineers should prioritize ethical practices from the startup stage, as these lead to sustainable growth, even if they encounter temporary setbacks in a challenging societal environment. This study makes a holistic contribution to the existing literature by underscoring the importance of engineering ethics in entrepreneurial success. However, limitations such as gender bias and reliance on the perspectives of entrepreneurial engineers are noted. Future research could address these limitations and explore how entrepreneurial engineers can contribute to achieving sustainable development goals through the application of engineering ethics.

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Key Words

Engineering ethics, Enduring prosperity, Entrepreneurial engineers, Grounded theory, Sri Lanka

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LIST OF ABBREVIATIONS

Abbreviation	Description
SDG	Sustainable Development Goals
CGT	Constructivist Grounded Theory
ICTAD	Institute of Construction Training and Development
NFE	the French norm for naming the quality classes of bolts
BS	British Standards
ISO	International Standards Organisation
OSHAS	Occupational Safety and Health Administration Standards
CSR	Cooperate Social Responsibility
NSPE	National Society of Professional Engineers
IESL	Institution of Engineers Sri Lanka
ECSL	Engineering Council Sri Lanka
ASCE	American Society of Civil Engineers
IEEE	Institute of Electrical & Electronic Engineers
FEANI	European Federation of National Engineering Associations
MD	Managing Director
CEO	Chief Executive Officer
EIA	Environment Impact Assessment
ABC	Aggregate Base Coarse
AC	Air Conditioner
NPK	Nitrogen, Phosphorous, Pottasium
SME	Small & Medium Size Enterprises
MEP	Mechanical, electrical & plumbing
CPD	Continuing Professional Development
LLL	Life Long Learning
PhD	Doctor of Philosophy
MSc	Master of Science
MBA	Master of Business Administration

R & D	Research & Development
UK	United Kingdom
HRM	Human Resource Management
SET	Science, Engineering & Technology
USA	United States of America
RBV	Resource-Based View
DCT	Dynamic Capabilities Theory

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