The annual X-Hab Academic Innovation Challenge is designed to engage students in Science, Technology, Engineering and Math (STEM). The National Aeronautics and Space Administration (NASA) identifies necessary technologies for deep space missions, and invites universities to develop prototypes that will help shape future space missions.

The University of Wisconsin-Milwaukee was selected to execute a project entitled Design of a Carbon-Fiber/Fused Deposition Modeling Spacecraft Structural Fabrication System. It was sponsored by NASA’s In-Space Manufacturing Project, based at the Marshall Space Flight Center.

The team studied 3-D printing technology applications for creating and recycling tools on long-term space missions.

The result is a must-read series of papers exploring the issues surrounding 3-D printing in a space environment, now published by SAE International as Studies into Additive Manufacturing for In-Space Manufacturing.

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Table of Contents

Preface ........................................................................................................................................... vii

Introduction ................................................................................................................................... ix

Chapter 1: Extrusion and 3D Printing of Recycled ABS Filament for Use in FDM – Lessons Learned ......................................................... 1
   Aleksey Yermakov, Brandon Hitter, Tressa Norden, and Anthony Demeuse

Chapter 2: Mechanical Properties of 3D-Printed Recycled ABS Materials for FDM Applications ........................................................................... 11
   Jon Wolgamott, Alexandra Slay, Keith Anderson, and Gabriella Santarosa

Chapter 3: Effects of Orientation Angle on the Mechanical Properties of FDM Parts ................................................................................................. 19
   Jon Wolgamott, Alexandra Slay, and Keith Anderson

Chapter 4: Finite Element Modeling of 3D Printed Materials Using Unit Cell Methods ............................................................................................ 27
   Seyedmohammad S. Shams and Daniella M. Perazzo

Chapter 5: Design of a Carbon-Fiber Reinforced Fused Deposition Modeling Modular Wrench Tool ................................................................. 37
   Alex Francis, Ben Huberty, Nicole Przybyla, and Alex Seidcheck

Chapter 6: Carbon Fiber Reinforced 3D Printed Ratchet: Feasibility and Application in Deep Space Missions ............................................................. 53
   Bryan Sinkovec and John Emholtz

Chapter 7: High Performance 3D Printed Carbon-fiber Reinforced Crowfoot Adaptive Tool ..................................................................................... 63
   Kelly Scott and Brett Sweeney

Chapter 8: A Recyclable ABS/Carbon-Fiber Reinforced Locking Pliers Tool Using Fused Deposition Modeling 3D Printing Technique ......................... 71
   Joel Klopstein and Bill Merschdorf

About the Authors ......................................................................................................................... 79

About the Editors ......................................................................................................................... 81