



Creation of a guide to manufacturing architecture models in a makerspace: a research through design

*Ana Julia Lopes de Souza*¹, *Gabriel Dias Venâncio*¹, *Pompilio Guimarães Reis Filho*², *Alber Neto*³

(1) Aluno de Iniciação Científica do PROVIC – Curso de Arquitetura e Urbanismo; (2) Coordenador do Curso de Engenharia de Produção do ISECENSA; (3) Pesquisador Orientador – Laboratório de Estudos Arquitetônicos – NP.AUP/ISECENSA – Curso de Arquitetura e Urbanismo – Institutos Superiores de Ensino do CENSA – ISECENSA, Rua Salvador Correa, 139, Centro, Campos dos Goytacazes, RJ, Brasil

The way of thinking about models changes with the popularization of 3D printing machines and laser cutting machines. This is at a time when the world is radically changing and the so-called Fourth Industrial Revolution is established through an economy based on 4.0 industries. Creative, innovative and entrepreneurial individuals are needed who can be resilient in a constantly changing environment. In this, new technologies such as 3D printers and other tools of physical prototyping are fundamental in the development of projects and manufacture of models. The objective is to test techniques for manufacturing architectural models in the ISECENSA Makerspace equipment and, based on these tests, formalize a manual that will compile the best practices. To achieve the objective, research is used through the act of designing, aiming to exhaust the potential of physical prototyping equipment (3D printer and cutting machine) in the manufacture of architectural models. The aim is to create a manual of recommendations in order to optimize the manufacture of models of architecture, urban planning and engineering in order to assist students and professors of ISECENSA.

Keywords: Design. Creativity. 3D printing.

Supported by: ISECENSA.