Bachelor thesis (BT) on Additive Manufacturing (AM) processes

Terms Additive manufacturing / rapid prototyping / 3D printing

This thesis has the term AM in its name. That doesn’t mean other terms couldn’t have been used instead.

Term “Automated fabrication” were used before AM. It was supposed to emphasize the fact that computers and controllers could take control of manufacturing processes and make them much easier to do.

“Freedom Fabrication” was used to imply that the build time of a part doesn’t depend on the geometry. In other words, the “more complex parts take longer time to build” rule, which is usually applied with conventional production methods, doesn’t apply here.

“Additive manufacturing” term is simply saying, that we are adding material to build the part instead of removing it.

“3D printing” term was mainly used within MIT researchers, and was implying the application of common 2D printers and adding a third dimension.

“Rapid prototyping” was term used in connection with additive manufacturing. It is not saying anything about any specific technologies. Instead, it’s emphasizing the speed and ease of AM processes compared to conventional prototyping ways. Rapid prototyping is saying – with AM, one is able to make (functional) prototypes much faster and cheaper without any other special equipment needed.

I chose to use term “Additive manufacturing” – AM in this thesis, because it is the most widely used term for described technologies. In Czech language, it would be probably term “3D printing”, which is by some guessed to be the term, that will be used the most in years to come. The reason is that people are familiar with home 2D printers, hence the term is easy to use and remember. There is no point in saying that one term is better to use than the other one – it is not an objective question, but a matter of choice, and I believe term AM fits the purpose of this BT the most.