

INTERNATIONAL PR IMPACT AWARD NOMINEE - THE NANOJESUS

digital
social
impact

Figure 17: NanoJesus Source: project website

AT A GLANCE

STUDY FIELD:	3D scanning, 3D modeling and 3D laser nano printing
DIGITAL READINESS:	Advanced
SOCIAL IMPACT EXPERIENCE:	Medium
LOCATION:	Vilnius, Lithuania
TARGET GROUP:	HEI students and staff
PARTNER ORGANIZATION:	Vilnius Archdiocese, "Go Vilnius", public body "Invest Lithuania", idea patron –Presidency of Republic of Lithuania
TEACHING METHODS (DURATION):	Service learning (one semester)
WEBSITE:	LINK

DETAILED DESCRIPTION

FREQUENCY:



Each year, the holiday season at Vilnius' Cathedral Square is marked not only by one of the most beautiful Christmas trees in the world, but also by the spectacular composition of the traditional Christmas Nativity Scene – the Holy Family, the Three Wisemen greeting the Holy Family, Shepherds and animals. In the picture above, you can see an exact replica of the Nativity Scene at Cathedral Square, which has been reduced to nanoscale dimensions, making it invisible to the human eye. In this nanoscale, Baby Jesus is smaller than a human cell! It took three months and the work of 30 people from VGTU, VGTU students and professors, the Laser Research Center at Vilnius University, micro-fabrication company Femtika and 3D-technology company Ideja 3D to develop and create the nativity.

SOCIAL IMPACT



World Records, and was talked about by the world's most famous daily newspapers such as the Guardian, The New York Times, The Washington Post, Ellen and many others. It has helped to highlight Lithuania as being one of the leaders in laser technologies in the world. It sends a message about the opportunities and achievements of the Lithuanian scientists and high technology market as well as the harmonious Vilnius city academic and cultural spirit. Vilnius is both a spiritually and technologically open city. A video posted by [VGTU](#) about the production of the model includes the greeting: "Welcome to high-tech Lithuania, Pope Francis." "We are small, but as you see ... size is an illusion," it concludes.

STRUCTURE



Students and professors at the "LinkMenu Fabrikas" center at Vilnius Gediminas Technical University (VGTU) developed the project along with local companies. The team first scanned the life-sized sculptures in the Cathedral Square nativity before making a digital model of the scene. They then reproduced the scene, but smaller by a factor of 10,000, and used a 3D printer to create it. Vilnius Tech feel very strongly that students must learn by doing and must learn to work in teams, especially multidiscipline teams. They actively seek out opportunities especially through LinkMenu Factory to engage with others. It is very important that VGTU students have a chance to work on such unprecedented interdisciplinary and multifaceted projects in cooperation with researchers, companies and public bodies.