Submission of abstract within the field of technology and design.

MEÄN SAUNA
- Inventory of old smoke saunas in the Swedish Torne river valley using laser scanning and photogrammetry.

The cultural heritage of the Swedish Torne river valley has been dominated by the Finns. A strong manifestation of this are the numerous smoke saunas on the area. Due to the Lapland war in 1944-45 the building stock as well as saunas were largely destroyed in Northern Finland. The smoke saunas in the Swedish side were left untouched and are representing the historical type of Finnish sauna culture and sauna buildings in Torne river valley and Lapland.

Every time a smoke sauna is warmed up there is a risk of fire, especially with old saunas. In Torne river valley there is a strong risk of cultural heritage vanishing, since no inventory of these saunas has been done on Swedish side.

In Project MEÄN SAUNA selected old smoke saunas in Swedish Torne river valley will be inventoried by researching of history, laser scanning and photogrammetry. 3D models of sauna buildings will be created and saunas will be classified. The lecture will present at least two old smoke saunas of which one is from 1720. Presentation will contain a brief historical background of saunas as well as an explanation and photographs of the site. The methods of laser-scanning and photogrammetry will be explained. The smoke sauna buildings will be presented by photography, point clouds and technical drawings. At the lecture live use of computers will be implemented, to make it possible to discover the saunas via 3D models.

Olle Hagman, PhD, Professor Wood Products Engineering, Luleå University of Technology.
Sara Porzilli, Architect, PhD Europaeus, Post Doctoral Fellow at the University of Oulu.
Markku Seppänen, BSc (Arch), Building Information Modeling Specialist, Oulu.
Mats Winsa, Architect SAR / MSA, Tärendö / Luleå.

Contact information:
Markku Seppänen, markku.seppanen@pohjoinen.net, +358 40 7457 314