## 9th International IIR Conference (on-line)

## "Ammonia and CO2 Refrigeration technologies"

16-17 September 2021, Ohrid, R. Macedonia - Information -

This 9<sup>th</sup> IIR conference was organized by the Faculty of Mechanical Engineering – Skopje in cooperation with the International Institute of Refrigeration.

Although first time organizing as on-line event, the organization of this IIR conference was very successful; it was thanking to assistance of our organizing partner Energija and to our IT partner Alkom.

We have the biggest number of participants until now. There were 186 participants from 32 countries.

## New horizons for ammonia and CO2 refrigeration are open.

**Ammonia:** low charge systems, factory made units, dry expansion, new types of heat exchangers such as shell-and-plate and microchannel heat exchangers, electronic expansion valves, new (miscible) oils, semi-hermetic compressors, heat pumps up to 90 °C of hot water, ...

**CO2:** applications in all climate locations, innovated thermodynamic cycles, parallel compression, ejectors as expansion devices, flooded evaporators, integrated approach, efficient heat pumps, expansion of many CO2 applications including in industrial systems, ...

The future of ammonia and CO2 refrigerants has never been more prospective than today. Because of the harmful impacts of fluorinated refrigerants on the environment, our refrigeration world is changing and natural refrigerants are leading the change.

## One curiosity:

Prof. Gustav Lorentzen spent a part of his life in Macedonia, in the city of Bitola, 60 km far from Ohrid. As an UN expert, he was working on development of industrial refrigerating equipment in the factory "Georgi Naumov". It was in (about) 1960. See the photo of Gustav Lorentzen in Ohrid.

We are looking forward to a next IIR conference in Ohrid in April 2023 as a face-to-face event.

Prof. Dr. Risto Ciconkov, President of the Organizing Committee. September 2021