

# Preface

The 9th International Symposium on High Mountain Remote Sensing Cartography (HMRSC-IX) was held under the auspices of the ICA Commission on Mountain Cartography in Graz, Austria, from September 14 to 15, 2006. The symposium was jointly organized by the hosting Institute of Geography and Regional Science of the University of Graz and the Institute of Remote Sensing and Photogrammetry of the Graz University of Technology. More than 85 participants from over 15 countries attended the event. During the two days 36 talks were given and 30 posters were presented. These proceedings contain 33 papers which were submitted to the editorial board in time. The sequence of the papers in this volume is structured according to the conference themes, i.e., remote sensing techniques, morphological mapping, monitoring of the environment, permafrost studies and rock glacier monitoring, high mountain cartography and 3D relief depiction, hybrid solutions of GIS and remote sensing, methodological improvements concerning HMRSC, and education.

The HMRSC-IX symposium was followed by a one-week (September 16-22) post-symposium field excursion to the Southeastern and Central Alps in Austria. Field excursions are an integral part of all HMRSC symposia. A comprehensive field guide was prepared by Professor Gerhard K. LIEB, Institute of Geography and Regional Science, describing various aspects of the itinerary, such as regional geography, high mountain research, and local culture. The field guide is included with this proceedings volume for documentation purposes.

On the occasion of the reception by the Mayor of Graz (September 13) four persons were honored for their outstanding contributions to the advancement of the ideas of High Mountain Remote Sensing Cartography. These four persons are (in alphabetical order):

- Professor Dr. Hubertus (Hugh) L. BLOEMER (Department of Geography, Ohio University, Athens, U.S.A.)
- Professor Dr. Manfred F. BUCHROITHNER (Institute for Cartography, Dresden University of Technology, Germany)
- Professor Dr. Robert KOSTKA (Institute of Remote Sensing and Photogrammetry, Graz University of Technology, Austria)
- Professor Dr. Saturnino LEGUIZAMÓN (Department of Scientific and Technological Research, University of Mendoza, Argentina)

Each of them received the „HMRSC Award of Appreciation 2006“, which consists of a certificate and a glass cube showing a high-resolution 3D image of the Glockner group in the Hohe Tauern National Park, including the Grossglockner, the highest mountain in Austria, and the Pasterze Glacier, the largest glacier in the Eastern Alps and in Austria.

The four persons honored were proposed to the Organizing Committee of HMRSC-IX. This proposal was seconded by Dr. Jürg LICHTENEGGER (European Space Agency), Professor Dr. Randall L. JONES (Marshall University, Huntington, West Virginia, U.S.A.), and Professor Dr. Gerhard BAX (Department of Earth Sciences, Uppsala University, Sweden).

Markus HOLLAUS (TU Vienna), Nora Jennifer SCHNEEVOIGT (UNI Oslo), Konstanze KLEINOD (UNI Bonn), Eric PERRUCHOU (UNI Fribourg), Juhana NIEMINEN (UNI Helsinki), and Linda MOSER (UNI Graz) received the „Young Authors Award“ for best oral/poster presentations. The award consisted of a certificate and a cash prize donated by Microsoft Photogrammetry (former Vexcel Imaging Austria) and GIS Steiermark.

The editors dedicate these proceedings to Dr. Leonhard BRANDSTÄTTER, world-wide recognized pioneer of mountain cartography, on the occasion of his 100th birthday.

The proceedings are also available online through the World Wide Web. Please see [http://www.uni-graz.at/geowww/hmrsc/hmrsc\\_9/](http://www.uni-graz.at/geowww/hmrsc/hmrsc_9/).

The sustained support of all HMRSC-IX co-sponsors (please see their respective logos at the back cover of the proceedings) is gratefully acknowledged. These sponsors helped tremendously to make this symposium a successful and also enjoyable event.

The success of the field excursion is above all due to the commitment of Professor Dr. Manfred BUCHROITHNER (Institute of Cartography, Dresden University of Technology), Professor Dr. Heinz SLUPETZKY (Department of Geography and Geology, University of Salzburg), Professor Dr. Gerhard K. LIEB (Institute of Geography and Regional Science, University of Graz), and Mag. Gerhard DULLNIG (Research and Science, Hohe Tauern National Park, Döllach, Carinthia), respectively. Their efforts are very much appreciated by all participants of the field excursion.

Ruth Hödl, Katharina Kern, Linda Moser and Michael Wurm are thanked for their administrative work during and after the symposium. Angelika Prohammer provided English language support, which is also acknowledged.

The excellent layout of the proceedings is thanks to Kasimir SZARAWARA, Maria SCHNABL, and Beate WENINGER from the Institute of Geography and Regional Science.

The printing of the proceedings was made possible by the financial support of Karl-Franzens University of Graz and Graz University of Technology.

At the time of printing of this volume it was already decided that the 10th International Symposium on High Mountain Remote Sensing Cartography (HMRSC-X) is to take place in Kathmandu, Nepal, in September 2008. The upcoming symposium will be organized by ICIMOD.

Viktor KAUFMANN and Wolfgang SULZER

Graz, October 2007