

## **Professor Dr. Martin Knez**

Karstologist, speleologist, PhD in geology, research advisor ZRC SAZU, professor

Date and place of birth: 25 July 1964, Ljubljana, Slovenia

In 1984, Martin Knez began his studies at the Department of Geology, the Faculty of Natural Sciences and Technology, which operates within the University of Ljubljana, finishing in 1989 with a diploma entitled *Paleogene Beds by the Railway Station Košana*.

Since 1989, he has been employed as a researcher at the Karst Research Institute, the Research Centre of the Slovenian Academy of Sciences and Arts (IZRK ZRC SAZU).

In the autumn of 1989, he enrolled in a master's study program and obtained his Master's Degree for a research study entitled *Paleoecological Properties of the Vreme and Kozina Beds in the Vicinity of the Cave Škocjanske Jame*. In 1995, he concluded his studies, but received a doctoral degree with his thesis *The Bedding-Plane Impact on the Development of Karst Caves (An Example of Velika Dolina, Cave Škocjanske Jame)* in 1996.

In 1994, Martin Knez continued his studies under Professor Adolfo Eraso Romero at Universidad Politécnica, Madrid. He has frequently furthered his professional and academic knowledge in France as part of a bilateral project established by the Slovenian Academy of Science and Arts, the U.R.A. 903 C.N.R.S. and PROTEUS, as well as in numerous other countries around the world.

His main field of work involves the stratigraphic, lithopetrologic and microtectonic research of karst terrains, as well as the subjects of selective corrosion and erosion of carbonates and speleogenesis of karst caves as a part of an underground karst aquifer. His research results have been published in numerous studies issued by the Karst Research Institute, as well as various Slovene and international scientific and professional publications. In addition to autonomous and several collaborative monographs, his results were presented at a variety of scientific meetings and karstological schools in Slovenia and abroad. Over 600 units of his work can be found in the COBISS system

<http://izumbib.izum.si/bibliografije/Y20160812101206-A3419491.html>

Martin Knez was involved in numerous international projects, including the following: COST ACTION, the PROTEUS program, several INTERREG projects, ATH-7.SWT, U.R.A. 903 C.N.R.S., UNESCO IGCP Project No. 286, UNESCO IGCP Project No. 299, UNESCO IGCP Project No. 379, UNESCO IGCP Project No. 448, and UNESCO IGCP Project No. 513, a number of international bilateral projects etc. He co-organized many international meetings, including the numerous *International Karstological Schools "Classical Karst"* which, for a quarter of a century, have served as the largest and the most important global gathering of karstological researchers.

Another such event is the *International Symposium on Water Tracing*. On multiple occasions, he co-organized the traditional karstology symposium in Sicily, Italy, as well as the first karstological gathering entitled *Karstology in Arid Regions* that took place in Abu Dhabi (United Arab Emirates). He also co-organized one of the symposiums within the *35<sup>th</sup> International Geological Congress* in Cape Town, the South African Republic, co-organized one of the symposiums within the *Resources for Future Generations Congress (Premier Conference on Energy, Minerals, Water, the Earth)* in Vancouver, Canada, co-organized one of the symposiums within the *45. Congress of International Association of hydrogeologists, Groundwater and life* in Daejeon, South Korea.

In 2010, he became the first Slovene to co-lead one of the global UNESCO IGCP projects, the UNESCO IGCP project No. 598 entitled *Environmental Change and Sustainability in Karst Systems*, co-leads also the following, UNESCO IGCP project No. 661 entitled *The Critical Zone in Karst Systems*.

In 2001, he was appointed Assistant Professor of Geology at the Faculty of Natural Sciences and Engineering, the University of Ljubljana. In 2013, he was appointed Associate Professor of Karstology at the University of Nova Gorica. At the University of Primorska, the Faculty of Humanities in Koper he lectures on several subjects to undergraduates at the first and second level. He participated in the preparation of the first teaching curricula for the Faculty of Humanities in Koper, from which the University of Primorska developed. He teaches several subjects within the Doctoral study program Karstology at the Graduate School at the University of Nova Gorica. He is also a lecturer at the School of Environmental Sciences operating within the University of Nova Gorica. He is head of the *Karst* module at the Faculty of Humanities in Koper. He lectures at the Postgraduate School ZRC SAZU and ERUDIO School of Sustainable Tourism in Ljubljana and acts as a mentor for numerous graduates at the first, second and third study level.

From 2013, he has acted as Director of the Doctoral study program Karstology, which is completely unique and the only program where students are awarded the title *Doctor of Science in Karstology*. The program is implemented at the University of Nova Gorica, in close cooperation with the Karst Research Institute.

He successfully carried out the procedure aiming to establish the UNESCO Chair. In 2014, the Doctoral study program Karstology was named UNESCO Chair on Karst Education, and Martin Knez was appointed as Head of this Chair. There exist 600 UNESCO Chairs in 130 countries, of which 30 Chairs deal with the environment and its protection, some 10 of them are involved in different types of education, while the above-referenced Chair at UNG is the only one with the word *karst* in its name.

From 1995, he has been researching the Chinese Karst. Along with his colleague Tadej Slabe, Martin Knez was the first foreign researcher to be

awarded two projects by the Chinese Foundation for Stone Forest Research. He co-authored and co-edited the notable books entitled *South China Karst I* (1998) and *South China Karst II* (2011). *South China Karst III* is in the preparation stages. He actively contributed to the 2008 inclusion of the Stone Forest (Shilin), an exceptional karst landscape in the south of China, on UNESCO's World Natural Heritage List. Currently recording around 5 million visitors per year, the Stone Forest is now successfully marketed under the *South China Karst* brand name.

He is co-founder, member of executive and scientific advisory board of International Center for Karst Research of Yunnan University and the Yunnan International Karst Environmental Laboratory (Kunming, Yunnan, China).

He was part of the group which researched the Heavens Cave and drew up a plan (in 2007 and 2009) for the tourist development of this cave and the Vietnamese Phong Nha-Ke Bang National Park, which is on the UNESCO World Heritage List.

He dedicated several years to work as editor on the fundamental Slovenian karstological work by Ivan Gams bearing the title *Karst in Slovenia in Space and Time*, which was first published in 2003 and reprinted in 2004.

Between 2002 and 2009, at the time the book was published, Martin Knez spent his time editing and writing the fundamental book on forms found on carbonate rocks, *Karst Rock Features, Karren Sculpturing*. Describing formations from all continents, the book was a project that involved 50 authors – researchers from around the world.

In addition to the above-referenced books, he is co-author and usually also co-editor of the following works: *Minerals in the Slovene Karst Caves* (1992), *Hydrogeological Aspects of Groundwater Protection in Karst Areas* (1995), *Kras, Slovene Classical Karst* (1997), *Environmental Geology* (1997), *Kras: pokrajina, življenje, ljudje* (1999), *Evolution of Karst: From Prekarst to Cessation* (2002), *Encyclopedia of Caves and Karst Science* (2004), *Kras: Water and Life in a Rocky Landscape* (2005), *Sinkholes and Subsidence: Karst and Cavernous Rocks in Engineering and Construction* (2005), *Changing Social Conditions and their Impacts on the Geocology – Transhumance. Regions of Romania and Slovenia* (2006), *Kraški pojavi, razkriti med gradnjo slovenskih avtocest* (2007), *Kras: Trajnostni razvoj kraške pokrajine* (2008), *The Geology of Slovenia* (2009), *Občina Ilirska Bistrica* (2011), *Karstology and Development Challenges on Karst I, Water* (2011), *Karstology and Development Challenges on Karst II, Construction, Tourism, Ecology, Protection* (2012), *Križna jama, Palaeontology, Zoology and Geology of Križna jama in Slovenia* (2014), *Paleoekološke značilnosti apnencev v okolici Škocjanskih jam* (2014), *The Beka–Ocizla Cave System: Karstological Railway Planning in Slovenia* (2015), *Marija v leščevju* (2015), *Cave Exploration in Slovenia: Discovering over 350 New Caves During Motorway Construction on Classical Karst* (2016), *EuroKarst 2016* (2016), *Karstology in the Classical Karst* (2020).

Martin Knez is a successful leader and member of international research programs, within which he works with karst experts from Croatia, the U.S.A., Cuba, Spain, Japan, Russia, Poland, Switzerland, Iran, Germany, Italy, the Slovak Republic, the Czech Republic, China, United Kingdom, United Arab Emirates, France, Australia, Vietnam etc.

He participates in and manages planning and construction projects on karst, which includes the issue of protecting the features of this area: he has been participating in the planning and karstological supervision of motorway and railway construction from 1990. He has managed several projects of planning a modernized railway route, i.e. railway corridor 5: Barcelona–Kiev between Divača and Koper/Trieste. In 2012, he completed as project leader an extensive research project entitled *The Second Track of the Divača–Koper Railway Line; the Divača–Črni Kal Section (Karstological Report)*, one of the foundations for the complex construction of the railway line between Divača and the Karst edge and in 2019 research project *Supplementary Research of Structural Geological, Hydrogeological, Karstological and Geotechnical Research for Detailed Design of The Second Track of the Divača–Koper Railway Line*.

He has taken part in over 100 applied research projects, acting as project leader in majority of them.

He sits on the scientific editorial board of Croatian magazine *Geologica Croatica, Karst Development*, the Hungarian karstology magazine, and acts as editor of thematic part of *Acta carsologica*.

In 1989, Martin Knez received the *Prešeren Award for students* for his research project titled *Paleogene Beds at the South Edge of the Pivka Valley*.

He is a member of the group which received China's national award called the *Yunnan Friendship Award* in 2003, the American award for *Outstanding Contribution to Karst Science* in 2007, award of Geographical Society of United Arab Emirates in 2016, the decoration of the Republic of Slovenia *The Order for Merits* in 2016.

In 2003, he co-authored an independent film *Kitajski kras* on the research conducted on China karst, in 2019 on the research conducted on South Siberian Altay karst entitled *Krasni kras*; films were broadcasted on national television.

He is a member of the Karstological Academy, the International Geographical Union's (IGU) Karst Commission, the International Union of Speleology's (UIS) Karst Hydrogeology and Speleogenesis Commission, the Slovenian National Commission for UNESCO IGGP, a co-founder and a member of the Executive Committee and Scientific Advisory Committee of the Yunnan University International Joint Research Center for Karstology and Yunnan International Karst Environmental Laboratory at the Yunnan Institute for Geography, Yunnan University (Kunming, Yunnan, China), a member of the Athens Institute for Education and Research, Greece, and of the Group of European Charophytologists (GEC). From 1999 to 2005, he presided over the

Scientific Council of the Karst Research Institute (ZRC SAZU). He was a member of the ZRC SAZU Publishing Council for several years. He is also a member of the Slovenian Researchers Association, the Geomorphological Society of Slovenia, and the Anthron Karstology Society.