

## Curriculum Vitae



*Formal Title: Prof. ,Ing., CSc. (PhD)*

*First Name: Karol*

*Surname: KOSTÚR*

*Company: Technical university, Faculty of Mining, Ecotechnology, Process Control and Geotechnics (F-BERG), Košice (www.tuke.sk)*

*Position: professor, Vice director of Process Control and Informatization for production processes, Head of UCG laboratory*

*Country: Slovak Republic (SK)*

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### **EDUCATION**

#### **Professor 1999**

- He was appointed to a professorship in "Process Control of extraction and materials processing" at Technical university (TU) Kosice

#### **Docent (reader) 1994/1988**

- Habilitation on TU Kosice in "Process Control of extraction and materials processing" at Technical university (TU) Kosice, 1994
- Habilitation on TU Kosice in Automated systems of control in 1988

#### **CSc (PhD) 1982**

- Dissertation work on Metallurgical faculty „Mathematical model for optimal control combustion and heating“

#### **Master (Dipl. Ing.) 1975**

- Metallurgical faculty TU Kosice (Theory of processes and Process Engineering)

### **Permanent employment:**

- 2016 – present time  
Professor and member of Scientist council at Faculty of Mining, Ecotechnology, Process Control and Geotechnics (F-BERG) and Vice director of Process Control and Informatization for production processes, TU Kosice
- 2015

Director of Institute Process Control and Informatization produced processes at Faculty-BERG TU Kosice

- 2008 – 2014  
Professor and member of Scientist council at Faculty of Mining, Ecotechnology, Process Control and Geotechnics (F-BERG), Kosice TU Kosice
- 2007 – 2008  
Head of Underground Coal Gasification laboratory at F-BERG Košice
- 2003 – 2008  
Director of Institute Process Control and Informatization produced processes at Faculty-BERG TU Kosice
- 1994 – 2002  
Head of department” Process Control of extraction and materials processing” at Faculty of BERG TU Košice
- 1991 – 1993  
Docent (reader) at Mining faculty TU Košice
- 1988 – 1991  
Docent (reader) at Metallurgical faculty TU Košice
- 1975 – 1988  
Assistant at Institute of Computer science TU Košice

## **Research:**

### **International projects:**

#### **Leader (coordinator) of projects:**

- **July 2013 – 2016 „Underground Coal Gasification in operating mine and areas of high vulnerability” ( EU- Program Coal and Steel Brussel:no. RFCR-CT-2013-00002 )**
- January 2009 – December 2010  
**The research and analysis of underground coal gasifying in the laboratory environment**  
**Client:** Turkish Coal Enterprises (Türkiye Kömür İşletmeleri Kurumu, Ankara), CONTRACT of WORK No. P-101-0003/10
- January 2004 – December 2005  
**The Optimization of Complex Heating Furnace – Hot Rolling Mill**  
CONTRACT of Aktion Österreich – Slowakei No 45s9 (Austria)
- January 1999 – December 2000  
**The inverse problems and mathematical modeling of industrial processes**

CONTRACT of SAAIC, Bilaterally project with University Linc (Austria)

- January 1997 – December 1998
- **Mathematical Modelling, Simulation, Control and Automation of processes and Systems in Mining and Metallurgy**  
CONTRACT of Aktion Österreich – Slowakei No 21x25 (Austria)

- January 1996 – December 1998  
**Košice local management skill development programe**  
Program SALP – British Council London

#### **Slovak grants and projects:**

##### **Head (coordinator) of projects :**

- February 2007 – 2010  
**Underground coal gasification by thermal dissociation**  
CONTRACT of No.: APVV-0582-06
- February 2003 – 2007  
**Possibilities of obtaining energy gas from coal seams**  
CONTRACT of No.: VEGA 1/2164/05, responsible solver prof. Sasvari
- January 2005 – 2007  
**Intelligent system of indirect temperature measurement**  
CONTRACT of No.: AV 4/0016/05
- January 2006 – 2009  
**Advance control processes of extraction and materials processing”**  
No.: VEGA 1/3346/06
- January 2003 – December 2006  
**Research of indirect relevant variables measurement in technologies of extraction and materials processing**  
No.: VEGA 1/0362/03
- January 2000 – December 2002  
**The study of characteristically acoustic signal and geotechnical variables for disintegration of rock by rotary drilling**
- January 1998 – December 2000  
**Identification of parameters disconnecting rocks for underground work**

#### **Others**

In research, He solved domestic and foreign projects (26) about UCG, fuel combustion, a heat transfer, mathematical modeling, optimization, monitoring and process optimal control and for industry too.

His international collaboration partners through-out his career include:

- GIG Katowice, Poland ; DMT Essen, Germany; Subterra Ingenieria, S.L. (SUB); Madrid Spain, University of Nottingham “UoN”; Nottingham, UK; Institut National de l’Environnement et des Risques INERIS, France; Asociación para la Investigación y el Desarrollo Industrial de los Recursos Naturales (AIT) Madrid, Spain (COGAR international project supported by European Union 2013-2016)
- MontänUniverzity Leoben Austria (The Optimization of Complex Heating Furnace – Hot Rolling Mill 2004-2005)
- University of Linc Austria (The inverse problems and mathematical modeling of industrial processes 1999-2000)
- MontänUniverzity Leoben (Mathematical Modelling, Simulation, Control and Automation of processes and Systems in Mining and Metallurgy 1997-1998)
- British council (study stay 1985)
- Moskva institute of steel and alloys (1979-1983)
- FI Freiberg (development of Spectral model of radiation 1976-1980).

He is author app. 220 articles in journals and conferences. Lately, Karol was responsible solver and leader of project by title: “Underground coal gasification by thermal dissociation”. In frame this project, was built special UCG laboratory for research UCG processes and he has been invited to lecture on more international conferences by title Underground Coal Gasification. Today, he is responsible solver of Slovakia team in international project supported by European Union “**Underground Coal Gasification in operating mine and areas of high vulnerability**”. He has been a member of IFAC (International Federation of Automatic Control for mining and metallurgy- [www.ifac-control.org](http://www.ifac-control.org)) and UCGP (Underground Coal Gasification Partnership) and UCGA (Underground Coal Gasification Association [www.ucgassociation.org](http://www.ucgassociation.org)) in London. He was founder of International Carpathian Control conference (ICCC) in central Europe at 2000y. Karol has worked as reviewer for journals Acta Montanistica Slovaca, Journal of Process Control, Fuel, and Metallurgy.