

## Curriculum vitae



### Personal Informations

Name **BIROU Iulian Mircea Tudor**  
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Date of Birth 04.11.1964

### CURRENT OCCUPATION/ POSITION/ EMPLOYER

Department of Electrical Machines and Drives, Faculty of Electrical Engineering, / Univ. Professor /  
Technical University of Cluj-Napoca, Memorandumului 28 Str., Cluj-Napoca, Romania

### Professional experience

Field of Education and Research

Period (since) 2003 – 2000 – 1996 – 1993 – 1991

Professional position Full Professor – Associate Professor – Lecturer – Assistant – Associate Assistant

Professional activities

**Teaching activities** (courses, seminars, projects, labs) at disciplines: **Bases of electrical drives** and **Scalar electrical drives** for the Study Programm *Electrical Drives* (until 2002); **Electrical Drives I and II** and **Control of Electrical Drives** for the Study Programs *Electrical Drives and Electromechanics* (2002-2012); **Electrical Drives** for all Study Programms of the *Electrical Engineering Faculty* (since 2012), **Real time computing systems for process control** (optional course) **Control Systems** for the Study Programs *Electrical Drives, Electromechanics and Industrial Power systems* (2002-2004); **Modern Control Theory for Motion Control** and **High Efficient Electromechanical Conversion Systems** the Master Study programms (*TMPACIE* and *MSEM*)

**Research activities** (competences) in the fields of:

- Electrical drives, Control of variable speed electrical drives.
- Modern control strategies (fuzzy systems, optimal robust control, adaptive control, intelligent control) used in motion control.
- Electrical drives for renewable energy generating systems
- Real time computing systems for process control.
- Parameter identification in electrical drives.

**Management activities:**

Head of Institute of Electrical Drives 2008-2011;  
Head of Department of Electrical Machines and Drives since 2011

Period 1989 - 1991

Professional position Dipl.Engineer

Professional activities Electrical engineer in the field of Control, Protection, Automation and Monitoring in Low and Medium Voltage Electrical Power Systems.

Employer Electrical Power Supply Company, IRE Cluj, Cluj-Napoca, Romania

### Education background

Period 1990 - 1999

Calification/title Doctoral work: *Reglarea vectorială a acțiunilor de curent alternativ optimizate cu logică fuzzy și regulatoare robuste  $H_2$  și  $H_{\infty}$* . (Vector control of AC drive systems with fuzzy-logic controllers and optimal robust  $H_2$  and  $H_{\infty}$  controllers)/ Ph.D. in the field of *Electrical Machines, Devices and Drives*. Technical University of Cluj-Napoca, Scientific supervisor: Prof.-Univ. Dr.-Eng. Arpad Kelemen

Period 1984-1989

Calification/title	University studies (bachelor and master), Faculty of Electrical Engineering / Dipl.Eng. in Electrical Engineering, specialization Electrical drives Technical University of Cluj-Napoca				
Period	1979 - 1983				
Calification/title	Highschool / Diploma in informatics (computer programming) Mathematics-physics highschool with informatics profile, Cluj-Napoca				
Period	1971 - 1979 German school, Cluj-Napoca				
Foreign languages	<b>German, english, french</b>				
	<b>Understanding</b>		<b>Speaking</b>		<b>Writing</b>
	Listening	Reading	Conversation	Oral speech	Composing
German language	C2	C2	C2	C2	C2
English language	C1	C1	C1	C1	C1
French language	B2	B2	B2	B2	B1
	(*) European evaluation criterias				
Social abilities	Communication ability				
Organazing abilities	Human resource management; Research project management Head of Institute, Head of Department, Member in the Faculty Council, Senator of the Technical University of Cluj.				
Technical competencies	Research, designing and control of technical and technological processes				
Computer competences	Working in operating systems, programming languages (Fortran, Pascal, C), application programming (Office, CAD, Simulation programms)				

## Additional Informations

### Specializations:

*iunie-aug.1991* – research stage at Universitee de Provence, Marseille, France;  
*martie1994* - graduating Workshop Texas Instruments, TMS320C3x, C4x - European Customer Training Centre;  
*oct.1994–aug.1995* – **DAAD (German Academic Exchange Service)**, University of Siegen, Germany;  
*febr.2000–ian.2001* - **Humboldt** postdoc Fellowship of Alexander von Humboldt Foundation at University of Erlangen-Nuernberg, Germany;  
*iun.– aug. 2005* –Humboldt guest Professor at University of Siegen, Germany  
*mai– aug 2017* - Humboldt guest Professor at University of Siegen, Germany  
*iun. – aug 2022* - Humboldt guest Professor at University of Siegen, Germany

### Avards:

- premii la olimpiadele nationale de matematica si de informatica (clasele VIII-XII);
- Premii la concursurile nationale studentesti de Electrotehnica –Traian Lalescu (Bucuresti, 1985) respectiv de Programarea Calculatoarelor (2 editii, Cluj-Napoca, 1985 si Craiova, 1986 ).

### Scientific results:

- 130 published scientific papers:
  - 1 book abroad;
  - 4 books as single author in Romania;
  - 30 papers published at Conferences abroad;
  - 64 papers at International Conferences;
  - 30 papers in scientific magazines;
- participant at 23 research contracts between 1991-2015:
  - 9 as research director/manager;
  - 5 international research projects
- visiting professor at Universities Darmstadt, Bochum, Karlsruhe, Siegen in Germania, Chisinau in Rep. Moldova between 2001-2021;
- permanent scientific reviewer of IEEE of Industrial Electronics Society
- permanent scientific reviewer of IEEE Transactions on Industrial Electronics
- scientific reviewer of Advances in Electrical and Computer Engineering
- scientific reviewer of over 10 ISI magazines
- member of the Scientific Board of many International Conferences

### Affiliations:

IEEE Member in Industry Application Society, Industrial Electronics Society, Power and Energy Society, Energy Conversion Society;  
IEEE-IAS Romania  
Humboldt Clubul Transilvania si Clubul Humboldt România;  
Alumni DAAD România;  
AGIR (Asociația Generala a Inginerilor din România);

### Recognitions:

In volum **Elite Clujene Contemporane**, vol. II, pp. 89-100, 2014

Cluj-Napoca, November 2024