



# Diana Ioana Otrocol

**Date of birth:** 18/03/1975 | **Place of birth:** Sibiu, Romania | **Nationality:** Romanian | **Gender:** Female |

**Phone number:** (+40) 740131477 (Mobile) | **Email address:** [Diana.Otrocol@math.utcluj.ro](mailto:Diana.Otrocol@math.utcluj.ro) |

**Address:** Observatorului 136, 400352, 12, A, 1, 400352, Cluj-Napoca, Romania (Home)

## WORK EXPERIENCE

 **COLEGIUL NAȚIONAL PEDAGOGIC "ANDREI ȘAGUNA" – SIBIU, ROMANIA**

**Address** Aleea Turnu Roșu , Nr. 2, 550361, Sibiu, Romania

**MATHEMATICS TEACHER AT SECONDARY SCHOOL – 01/09/1997 – 31/08/1998**

- Teaching mathematics to secondary school students.
- Preparing lesson plans and educational materials.
- Assessing and evaluating students' progress.
- Organizing and supervising classroom activities.
- Supporting students in developing analytical and problem-solving skills.

 **COLEGIUL TEHNIC INDEPENDENȚA SIBIU – SIBIU, ROMANIA**

**Address** Str. Gladiolelor, Nr. 2, Sibiu, Romania

**MATHEMATICS TEACHER AT SECONDARY SCHOOL – 01/09/1998 – 31/08/2001**

- Teaching mathematics to secondary school students.
- Preparing lesson plans and educational materials.
- Assessing and evaluating students' progress.
- Organizing and supervising classroom activities.
- Supporting students in developing analytical and problem-solving skills.

 **GRUP ȘCOLAR INDUSTRIAL CONSTRUCȚII DE MAȘINI SIBIU – SIBIU, ROMANIA**

**Address** Str. Henri Coanda, Nr. 51, Sibiu, Romania

**MATHEMATICS TEACHER AT SECONDARY SCHOOL – 01/09/2001 – 09/2002**

- Teaching mathematics to secondary school students.
- Preparing lesson plans and educational materials.
- Assessing and evaluating students' progress.
- Organizing and supervising classroom activities.
- Supporting students in developing analytical and problem-solving skills.

 **BABES-BOLYAI UNIVERSITY, FACULTY OF MATHEMATICS AND COMPUTER SCIENCE – CLUJ NAPOCA, ROMANIA**

**Address** Mihail Kogalniceanu Street, No. 1, RO-400084, Cluj Napoca, Romania

**FULL-TIME PHD STUDENT IN MATHEMATICS – 01/10/2002 – 31/12/2005**

- Conducting research in the field of mathematics.
- Preparing and presenting research papers and reports.
- Participating in academic seminars and conferences.
- Assisting in teaching undergraduate mathematics courses.
- Taught undergraduate seminar classes in mathematics.

 **TIBERIU POPOVICIU INSTITUTE OF NUMERICAL ANALYSIS, ROMANIAN ACADEMY – CLUJ NAPOCA, ROMANIA**

**Address** Fântânele Street, No. 57, 400320, Cluj Napoca, Romania

## **RESEARCHER ASSISTANT – 01/01/2006 – 01/02/2011**

- Collected, analyzed, and interpreted data.
- Prepared reports, presentations, and research documentation.
- Collaborated with senior researchers and academic staff.

 **IULIU HAȚIEGANU UNIVERSITY OF MEDICINE AND PHARMACY, CLUJ-NAPOCA** – CLUJ NAPOCA, ROMANIA

**Address** Louis Pasteur Street, 4, 400349, Cluj Napoca, Romania

## **EXTERNAL TEACHING ASSOCIATE – 01/10/2011 – 31/08/2012**

Taught and supervised seminar sessions for undergraduate mathematics courses

 **TIBERIU POPOVICIU INSTITUTE OF NUMERICAL ANALYSIS, ROMANIAN ACADEMY** – CLUJ NAPOCA, ROMANIA

## **SCIENTIFIC RESEARCHER III – 01/05/2011 – CURRENT**

### **1. Research and Development**

### **2. Publication and Dissemination**

- Writing and publishing scientific articles in journals and conference proceedings.
- Presenting research findings at national and international conferences.
- Participating in workshops, seminars, and research groups.

### **3. Collaboration and Coordination**

- Collaborating with researchers
- Preparing research grant proposals and project documentation.

### **4. Evaluation and Monitoring**

- Monitoring the progress of research projects.
- Evaluating results and preparing scientific reports.
- Reviewing articles for academic journals (peer review)

 **TECHNICAL UNIVERSITY OF CLUJ-NAPOCA** – CLUJ NAPOCA, ROMANIA

## **EXTERNAL TEACHING ASSOCIATE – 01/10/2016 – 31/08/2017**

Taught and supervised seminar sessions for undergraduate mathematics courses

 **TECHNICAL UNIVERSITY OF CLUJ-NAPOCA** – CLUJ NAPOCA, ROMANIA

**Address** Memorandumului Street, 28, 400114, Cluj Napoca, Romania

## **ASSISTANT PROFESSOR – 01/10/2017 – 31/08/2023**

### **Teaching activities:**

- Delivering lectures and conducting seminars for undergraduate and graduate students.

Lectures: Mathematical Analysis, Linear Algebra and Analytical Geometry, Special Mathematics

Seminars: Mathematical Analysis, Linear Algebra and Analytical Geometry, (in Romanian and in English), Special Mathematics, Special Mathematics in Engineering (in Romanian and in English), Differential Equations

- Preparing course materials, assignments, and exams.
- Supervising and mentoring students in projects.
- Providing academic guidance and supporting students' learning and development.

### **Research activities:**

- Designing and conducting research projects in mathematics.
- Collecting, analyzing, and interpreting data.
- Publishing research results in peer-reviewed journals and conference proceedings.
- Presenting communications at national and international conferences.
- Collaborating with colleagues and research teams on academic projects.
- Contributing to grant proposals and research funding applications.

 **FACULTY OF AUTOMATION AND COMPUTER SCIENCE, TECHNICAL UNIVERSITY OF CLUJ-NAPOCA** – CLUJ NAPOCA, ROMANIA

## **ASSISTANT MANAGER – PROJECT ROSE (CAN!) – 12/2019 – 2023**

- Assisted in managing the ROSE (Can!) project focused on education and career counseling.
- Contributed to strategies aimed at increasing first-year university student retention.
- Organized workshops, counseling sessions, and support activities for students.
- Coordinated with faculty members and project team to implement project objectives.

 **FACULTY OF AUTOMATION AND COMPUTER SCIENCE, TECHNICAL UNIVERSITY OF CLUJ NAPOCA** – CLUJ NAPOCA, ROMANIA

## EDUCATIONAL MARKETING EXPERT – 2020 – 2021

the project „Education and career counseling for increasing the retention rate in the first year of university studies” at the Faculty of Automation and Computer Science, Technical University of Cluj Napoca.  
ROSE ( Romania Secondary Education Project) - AG239/SGU/NC/II

- Provided expertise in curriculum design and educational programs.
- Advised on teaching methods, student assessment, and educational policies.
- Participated in educational projects, workshops, and teacher training initiatives.
- Contributed to the development and implementation of strategies for improving education quality.

## 🏢 TECHNICAL UNIVERSITY OF CLUJ NAPOCA, PROJECT NO. 99/SGU/CI/II DIN 17.12.2018 – CLUJ NAPOCA, ROMANIA LEARNING EXPERT – 2019 – 2021

- Designed and implemented learning programs and curricula.
- Provided guidance on teaching methods and instructional strategies.

## 🏢 TECHNICAL UNIVERSITY OF CLUJ NAPOCA – CLUJ NAPOCA, ROMANIA

### SUPPORT LECTURES FOR STUDENTS FOR THE COMPETITION: “TRAIAN LALESCU’S STUDENTS MATHEMATICS COMPETITION” – 2019 – CURRENT

- Assisted lectures and guided students participating in the “Traian Lalescu” Students Mathematics Competition.
- Provided mentorship and academic support to competition participants.
- Helped organize and coordinate training sessions and practice exercises.

## ● **EDUCATION AND TRAINING**

01/10/1993 – 31/08/1997 Cluj-Napoca, Romania

**BACHELOR’S DEGREE IN MATHEMATICS** Babes-Bolyai University, Faculty of Matematics and Computer Science

**Address** Mihail Kogalniceanu Street, No. 1, RO-400084 , Cluj-Napoca, Romania | **Website** <https://www.cs.ubbcluj.ro/> |

**Field of study** Education science

01/09/1998 – 31/08/1999 Cluj-Napoca, Romania

**FULLY QUALIFIED TEACHER** Babes-Bolyai University, Faculty of Matematics and Computer Science

**Website** <https://www.cs.ubbcluj.ro/> | **Field of study** Education science

01/10/2001 – 31/12/2002 Sibiu, Romania

**MASTER’S DEGREE IN MATEMATICS AND APPLIED INFORMATICS** Lucian Blaga University, Faculty of Sciences

**Website** <https://www.ulbsibiu.ro/ro/> | **Field of study** Education science

## ● **LANGUAGE SKILLS**

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	C1	B2	B2	C1
<b>FRENCH</b>	B1	B1	B1	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## ● SKILLS

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Managerial skills | Good communication skills | Teamwork | Adaptability | Creativity | Mathematical modeling | Academic writing | Statistical software (MAPLE, MATLAB) | Time management

## ● CERTIFICATIONS

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Technical University of Cluj-Napoca, Career Counseling and Guidance Center, 2019

### **Career Coaching for Young People**

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Promoting social inclusion and increasing access to technical higher education via career education programs

**Mode of learning:** Project based

## ● CONFERENCES AND SEMINARS

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Cluj-Napoca

### **Member of the local organizing committee of Conferences**

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■ **Cluj Academic Days**, Cluj-Napoca, Romania, 2008

■ **International Conference on Nonlinear Operators, Differential Equations and Applications**, 2004 and 2007, Cluj-Napoca Romania

■ **The 16th International Conference on Applied Mathematics and Computer Science**, Cluj-Napoca, România, 3-6 July, 2019.

■ Member of the local organizing committee of: **"The 13th Romanian - German Seminar on Approximation Theory and Its Applications"**, Cluj-Napoca, România, 3-6 Iulie, 2019.

## ● NETWORKS AND MEMBERSHIPS

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### **Memberships / Professional Associations**

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■ Member of the **Romanian Mathematical Society** (SSMR)

■ Member of **"Theodor Angheluta Seminar"**

■ Editorial secretary of the journal **Journal of Numerical Analysis and Approximation Theory** (Revue d'Analyse Numérique et de Théorie de l'Approximation) in the period 2013-2022

■ Editorial secretary of the journal **Annals of the Tiberiu Popoviciu Seminar of Functional Equations, Approximation and Convexity**

## ● PUBLICATIONS

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2021

### **Ulam stability of a linear difference equation in locally convex spaces**

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Novac, D. Otrocol, D. Popa, Ulam stability of a linear difference equation in locally convex spaces, Results Math., 76, 33 (2021).

**Authors:** Novac, D. Otrocol, D. Popa | **Journal Name:** Results Math.

2020

### **Solutions with a prescribed interval of positivity for differential systems with nonlocal conditions, Appl. Math. Comput. (ISSN: 0096-3003, IF: 4.397), 375 (2020), 15, 125092**

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■ V. Ilea, A. Novac, D. Otrocol, R. Precup, Solutions with a prescribed interval of positivity for differential systems with nonlocal conditions, Appl. Math. Comput. (ISSN: 0096-3003, IF: 4.397), 375 (2020), 15, 125092

**Authors:** V. Ilea, A. Novac, D. Otrocol, R. Precup | **Journal Name:** Appl. Math. Comput.

2022

### **Applications of fibre contraction principle to some classes of functional integral equations**

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■ V. Ilea, D. Otrocol, I.A. Rus, M.-A. Serban, Applications of fibre contraction principle to some classes of functional integral equations, Fixed Point Theory (ISSN: 1583-5022, IF: 1.396), 23 (2022) no. 1, 279-292

**Authors:** V. Ilea, D. Otrocol, I.A. Rus, M.-A. Serban | **Journal Name:** Fixed Point Theory

2020

## On the Burton method of progressive contractions for Volterra integral equations

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■ V. Ilea, D. Otrocol, On the Burton method of progressive contractions for Volterra integral equations, Fixed Point Theory (ISSN: 1583-5022, IF: 1.396), 21 (2020), No. 2, 585-594.

**Journal Name:** Fixed Point Theory

2018

## An efficient step method for a system of differential equations with delay

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D. Otrocol, M.-A. Serban, An efficient step method for a system of differential equations with delay, Journal of Applied Analysis and Computation (ISSN: 2156-907X, IF: 1.429), 8 (2018), No. 2, 498-508

**Authors:** D. Otrocol, M.-A. Serban

2014

## Systems of functional-differential equations with maxima

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D. Otrocol, Systems of functional-differential equations with maxima, of mixed type, Electron. J. Qual. Theory Differ. Equ. (ISSN: 1417-3875, IF: 1.316), 2014, No. 5, 1-9.

**Authors:** D. Otrocol | **Journal Name:** Electron. J. Qual. Theory Differ. Equ.

2013

## Ulam stability for a delay differential equation

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D. Otrocol, V.A. Ilea, Ulam stability for a delay differential equation, Central European Journal of Mathematics (ISSN: 1895-1074, IF: 0.489) 11(7) (2013), 1296-1303

**Authors:** D. Otrocol, V.A. Ilea | **Journal Name:** Central European Journal of Mathematics

2008

## Functional-differential equations with “maxima” via weakly Picard operators theory

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D. Otrocol, I. A. Rus, Functional-differential equations with “maxima” via weakly Picard operators theory, Bull. Math. Soc. Sci. Math. Roumanie (ISSN: 1220-3874, IF: 0.232), 51(99) (2008), No. 3, pp. 253-261

**Authors:** D. Otrocol, I. A. Rus | **Journal Name:** Bull. Math. Soc. Sci. Math. Roumanie

## ● REVIEWER

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2008 – CURRENT

## Reviewer for scientific journals

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- Mathematical Reviews
- Nonautonomous Dynamical Systems
- Demonstratio Mathematica
- Discrete and Continuous Dynamical Systems
- Fractal and fractionals
- Qualitative Theory of Dynamical Systems
- Mathematics
- Studia Universitatis Babes-Bolyai Mathematica
- Fixed Point Theory

Reviewed manuscripts submitted to peer-reviewed journals.

Provided constructive feedback to authors on methodology, results, and clarity.

Contributed to maintaining high standards in academic publishing.