



Ralph Alexandru Erdelyi



● WORK EXPERIENCE

19 SEP 16 – CURRENT Timișoara, Romania

MEDICAL PHYSICIST DENTAL EXPERTS SRL

- Performing 2D (Intraoral, Sinus, Panoramic) and 3D CBCT radiographs
- Responsible for X-ray units (Planmeca Promax and Gendex Oralix) - nivel 1 CNCAN
- Maintenance for all the equipment from dental clinic (laptops, printers, LAN, dental equipment) and assuring a good workflow and functionality for both hardware and software.

30 SEP 18 – CURRENT Arad/Timisoara, Romania

PHD STUDENT AUREL VLAICU UNIVERSITY OF ARAD/ POLITEHNIC UNIVERSITY OF TIMISOARA

- Writing scientific papers for Journals and Conferences
- Working in laboratory (OCT imaging with a system developed by the research group)
- Developing knowledges in areas of interest (imaging, engineering, mechanics and optics)
- Teamwork
- Organizing task in order to fulfil them before a certain deadline.

1 JAN 21 – CURRENT Arad, Romania

RESEARCH ASSISTANT IN MECHANICAL AND OPTOMECHATRONIC ENGINEERING AUREL VLAICU UNIVERSITY

PN-III-P4-ID-PCE2020-2600 - Risley prism laser scanning systems with applications in medical and industrial imaging using Coherent Optical Tomography (OCT)

OCT 20 – CURRENT Arad, Romania

RESEARCH ASSISTANT IN MECHANICAL AND OPTOMECHATRONIC ENGINEERING AUREL VLAICU UNIVERSITY

PN-III-P2-2.1-PED-2019-4423 - Optical Coherence Tomography for Non-Destructive Testing in Industry

● EDUCATION AND TRAINING

30 SEP 18 – CURRENT Timisoara

PHD STUDENT Polytechnic University of Timisoara

Disciplines

- Optics
- Medical Physics
- Atomic, Molecular and Optical Physics

Skills and expertise (8)

- Imaging
- Computed Tomography
- Medical Imaging
- 3D Imaging
- Radiography
- X-ray Computed Tomography
- X-ray Imaging

30 SEP 16 – 3 JUL 18 Timisoara, Romania

MASTER IN APPLIED PHYSICS IN MEDICINE West University of Timisoara

Physics Department, Applied Physics in Medicine specialty

Master thesis: Dental medical imaging with optical coherence tomography (OCT)

30 SEP 12 – 3 JUL 15 Timisoara, Romania

MEDICAL PHYSICIST West University of Timisoara

Physics Department, Medical Physics specialty

General subjects

- Programming, Math, Statistics, Mechanics, Chemistry, Nuclear and Atomic Physics, Biophysics, Radiology and Imaging

14 SEP 08 – 14 JUN 12 Arad, Romania

HIGHSCHOOL Moise Nicoara National College

Mathematics and Computer Sciences, intensiv English

● LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2
GERMAN	A2	B1	A2	A2	A2

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

● DIGITAL SKILLS

C C++ C | IT - Hardware and Software Support | Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Microsoft Outlook, Adobe PDF. | C# | Image editing | Knowledge of desktop hardware software applications operating systems and network connectivity

● ADDITIONAL INFORMATION

PUBLICATIONS

Publicații

<https://scholar.google.com/citations?user=US5ZrpgAAAJ&hl=ro> - pagina Google Academic

https://www.researchgate.net/profile/Ralph_Erdelyi - pagina ResearchGate

[Effect of an Anaerobic Fermentation Process on 3D-Printed PLA Materials of a Biogas-Generating Reactor](#)

- 2022

Article

<https://www.mdpi.com/1996-1944/15/23/8571>

[Complementarity of OCT and radiography for imaging investigations in dentistry](#) – 2022

Conference paper

[Optimization of X-ray Investigations in Dentistry Using Optical Coherence Tomography](#) – 2021

Article

DOI: 10.3390/s21134554

[Dental Diagnosis and Treatment Assessments: Between X-rays Radiography and Optical Coherence Tomography](#)

– 2020

Article

[A combination of imaging techniques for dental medicine: from X-rays radiography and 3D CBCT to OCT](#)

– 2020

Conference Paper

[Investigations of dental cavities: between X-ray radiography and OCT](#) – 2019

Conference paper

[Metallic fractures assessments: OCT versus SEM](#) – 2019

Conference paper

[Improving the Performances of the Sensor Array for Dental Radiographs](#) – 2019

Conference paper

[Optimization of radiation doses and patients' risk in dental radiography](#) – 2019

Conference paper

CONFERENCES AND SEMINARS

24 APR 23 – 27 APR 23

SPIE Optics+Optoelectronics 2023 Prague, Czech Republic

25 JUN 23 – 29 JUN 23

European Conference on Biomedical Optics Munchen, Germany

3 APR 22 – 7 APR 22

SPIE Photonics Europe 2022

13 DEC 21 – 16 DEC 21

1st International Conference: Advances in 3OM: Opto-Mechatronics, Opto-Mechanics and Optical Metrology (Advances in 3OM)

19 MAY 21 – 20 MAY 21

3OM Workshops in Optomechatronics and Biomedical Imaging 2021

28 FEB 20 – 1 APR 20 – Strasbourg, Franta

SPIE Photonics Europe 2020

7 OCT 19 – 9 OCT 19 – Liberec, Cehia

Optics and Measurements International Conference 2019

APR 19 – MAY 19

3OM Workshops in Optomechatronics and Biomedical Imaging 2019

28 MAY 19 – 30 MAY 19 – Universitatea Politehnica Timisoara, Romania

IEEE 13th International Symposium on Applied Computational Intelligence and Informatics (SACI 2019)

MAY 18 – JUN 18 – Universitatea Aurel Vlaicu Arad, Romania

SICSS 2018

HONOURS AND AWARDS

16 DEC 23

Best Biomedical Imaging Paper

Paper presented on 1st International Conference: Advances in 3OM: Opto-Mechatronics, Opto-Mechanics and Optical Metrology (Advances in 3OM)

15 JUL 19

Certificate of Excellence – National Minister of Education National Minister of Education

Aurel Vlaicu University of Arad

General Asociation of Engineers from Romania

for the performance achieved in research activity

ORGANISATIONAL SKILLS

Organizational Skills - Training Management and Leadership

- Training Teamwork

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills - Social skills developed during the experience of 7 years with patients and colleagues.

- Communication skills developed at those two trainings. ("Marketing and Management" and "Teamwork")

- Capacity of solving problems appeared from nowhere, developed while organizing TIM conferences (2012 and 2013)

- Capacity of explaining several themes while organizing Open Doors of the University (2013, 2014, 2015)

COMPETENȚE DOBÂNDITE LA LOCUL DE MUNCĂ

Skills developed at work

- Specialization in the field of radiation

- Optimizing workflow and protocol for working with X-ray equipment

- Improving the mentality toward performance

- Mentorship: capacity of teaching new peoples into this area