

PERSONAL INFORMATION **IULIU ADRIAN NADAS**



📍 National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, 67-103 Donath St., 400293 Cluj-Napoca, ROMANIA

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✉ Iuliu.Nadas@itim-cj.ro

Sex Male | Date of birth 02/05/1979 | Nationality Romanian

WORK EXPERIENCE

June 2016- Present

Technological Development Engineer II

National Institute for Research and Development of Isotropic and Molecular Technologies, Cluj-Napoca, 67-103 Donath Street 400293 Cluj-Napoca, Romania, <http://www.itim-cj.ro>

Mechanical design and development of testing and equipping devices for mechanical systems used in the ATLAS research project at CERN.

February. 2013 – June 2016

Mechanical Design Engineer

S.C. Emerson S.R.L, Cluj-Napoca, Emerson Street No.4, 400641, +40 (364) 731000. Fax: +40 (364) 731001

Tel:

- Mechanical Design of AC units, integration of electrical, thermodynamic in the assembly unit for example: fans, compressors, electrical panel, evaporating coil, condensing coil, refrigerant circuit and so on.
- The 3D software used for design was Solid Edge ST3, ST6 and ST8 and the used modules were SE-assembly, sheet metal, part and draft.
- Over the 50% abroad work in R&D offices in Nove Mesto, Slovakia and Tognana, Italy.

June 2007-February 2013

IDDS Engineer/DC Power Design Engineer

S.C. Emerson S.R.L, Cluj-Napoca, Emerson Street No.4, 400641, Tel: +40 (364) 731000, Fax: +40 (364) 731000

- 2007-2008 design fiber optic networks (FTTP) for residential areas in USA on Virginia and Pennsylvania. Make work prints for installers to have them in field. Dimensioning distribution terminals and calculation number of fibers based of hub dimension and number of houses in the designated area.
- Customer's data base and maps update.
- Software used Microstation for drafting, this software was inside of IDDS platform.
- 2008-2013 DC Power Design Engineer, design installation of DC power equipment based on customer's standards for C. O's. The main customers were AT&T.
- Made BOM's based on information from field engineer, made project specifications (SPEC) based of customer's standards. Start-up call and close-out call for each project, remote support for installer in field if needed.

July2006 – June 2007

Mechanical design Engineer

S.C. NAPOSINT S.R.L., Cluj-Napoca (Romania)

- Design of tools and devices necessary for manufacturing of sintered parts.
- Study the design that came from client and redesign and propose technological solution based on technological capabilities.
- Software used AutoCad and SolidWorks.

January 2006 - July 2007

Mechanical Engineer

Tehnomat S.R.L. , Cluj-Napoca (Romania)

- Made 2D drawings and 3D drawings for auto industry and automotive industry.
- Software used SolidWorks.

Mechanical Engineer

November 2003- January 2006

S.C. Copa Electronic S.R.L.

- Here my main activity was maintenance and improvement for this assembly line which assembled mechanical parts.
- Assurance the quality of production made on this assembly line, continuous improving of assembly line, work instructions for assembly line operators.
- Mechanical design and improvement of some devices for assembly line.

EDUCATION AND TRAINING

1998 - 2003	Bachelor of science in Engineer - Mechanical Engineering Technical University of Cluj-Napoca, Faculty of Machine Building, 103-104 Muncii Blvd. 400641, Cluj-Napoca, Cluj, Romania.
2004 - 2005	Master diploma in quality engineering. Technical University of Cluj-Napoca, Faculty of Machine Building, 103-104 Muncii Blvd. 400641, Cluj-Napoca, Cluj, Romania.
2016 - 2022	Doctoral studies in mechanical engineering completed with the thesis titled "Development of medical parallel robots for lower limb rehabilitation" Technical University of Cluj-Napoca, Faculty of Industrial engineering, robotics and Production Management, 103-104 Muncii Blvd. 400641, Cluj-Napoca, Cluj, Romania

PERSONAL SKILLS

Mother tongue Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B2	B2	B1	B1
Italian	A1	A1	A1	A1	A1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Communication skills Good communication competences both writing and speak. Experience working in multicultural teams, good experience working abroad.

Organizational / managerial skills Good organizational of work activities.
Good analytical skills.
Understanding work flows and processes.

Job-related skills Ability to handle/prioritize multiple tasks as necessary.
Able to focus on technical problems and solve.
Analyze possible technical solutions from multiple point of view.

Digital competence	SELF-ASSESSMENT				
	Information processing	Communication	Content creation	Safety	Problem solving
	Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user

- Other skills:
- Advanced knowledge in CAD application like Solid Edge, SolidWorks, AutoCAD, Creo Parametric, Microstation.
 - A good command of desktop operating system and office applications;
 - a good command of office suites (word processor, spreadsheet, presentation software)
 - knowledge of photo editing and graphics processing suite

Driving license B

ADDITIONAL INFORMATION

- I have 19 years of experience in engineering domain, gathered technical skills in mechanical engineering and also in telecommunications and electrical engineering.
- Able to prioritize tasks.
- Projects:
- Participations in the projects for automotive industry.
- Design tools for sintered parts for customers like Bosch, ThyssenKrupp Bilstein, Stabilus etc.
- Experience in Telecom area and DC Power design made projects for biggest Telecom companies in United States like AT&T and Verizon.
- Work for one of the leaders in thermal management (cooling) solutions for data centers sectors, work for improvement and redesign of 2 families of air conditioning units and new design of the newest Evaporating Freecooling unit.
- Experience in mechanical design of mechanical systems used in ATLAS Experiment from CERN.
- Experience in research and development of parallel robotic systems used in medical applications like robotic systems for medical recovery of upper and lower limbs for patients with motion impairments due to a neurological disease.

List of papers

“Technical Design Report for the Phase-II, Upgrade of the ATLAS Tile Calorimeter” ATLAS-TDR-028 CERN -LHC-2017-019

Nadas, I. A., Pisla, D., Vaida, C., Gherman, B. G., & Carbone, G. (2018). Towards Cost-Oriented User-Friendly Robotic Systems for Post-Stroke Rehabilitation. In M. Habib (Ed.), *Handbook of Research on Biomimetics and Biomedical Robotics* (pp. 99-141). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-2993-4.ch005

Nadas I., Vaida C., Gherman B., Pisla D., Carbone G. “Considerations for Designing Robotic Upper Limb Rehabilitation Devices”, 11th International Conference on Processes in isotopic and Molecules PIM 2017, Cluj-Napoca, Poster T3-15, 2017.

Nadas I. et al. (2019) Design of Dual-Arm Exoskeleton for Mirrored Upper Limb Rehabilitation. In: Carbone G., Ceccarelli M., Pisla D. (eds) *New Trends in Medical and Service Robotics. Mechanisms and Machine Science*, vol 65. Springer, Cham. https://doi.org/10.1007/978-3-030-00329-6_34 (BDI proceeding indexed conference)

The ATLAS Collaboration, ATLAS Tile Calorimeter: Technical Design Report for the Phase-II Upgrade of the ATLAS Tile Calorimeter. Reference: ATLAS-TDR-028 CERN-LHCC-2017-019, CERN, Geneva, June 2018

Nadas, I., A., Gherman, B., Bîrlescu, I., Banica, A., Carbone, G., Pisla, D.: "Analysis of the design and dynamic balancing of the RECOVER robotic system" 2020 IOP Conf. Ser.: Mater. Sci. Eng. 997 012083 doi:10.1088/1757-899X/997/1/012083 (BDI proceeding indexed conference)

Gherman B., **Nadas I.**, Tucan P., Carbone G., Pisla D. (2021) Design and Simulation of Gait Rehabilitation Parallel Robotic System. In: Lovasz EC., Maniu I., Doroftei I., Ivanescu M., Gruescu CM. (eds) *New Advances in Mechanisms, Mechanical Transmissions and Robotics. MTM&Robotics 2020. Mechanisms and Machine Science*, vol 88. Springer, Cham. https://doi.org/10.1007/978-3-030-60076-1_17 (BDI proceeding indexed conference)

I.Nadas, B. Gherman, S. Albert, V. Surducun, N. Pop, G. Carbone, A. Banica, D. Pisla "Design and Control of Recover Parallel Robot" Proceedings of The 1st International Conference on Advanced Research in Engineering CARE 2020, Craiova 2020 ISSN 2734-7400 ISSN-L 2734-7400 (BDI proceeding indexed conference)

NADAS, Iuliu et al. INNOVATIVE DEVELOPMENT OF A PARALLEL ROBOTIC SYSTEM FOR LOWER LIMB REHABILITATION. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.I.], v. 64, n. 1-S2, mar. 2021. ISSN 2393-2988. Available at: <<https://atna-mam.utcluj.ro/index.php/Acta/article/view/1537>>. Date accessed: 05 Oct. 2021.

Pisla D., **Nadas I.**, Tucan P., Albert S., Carbone G., Antal T., Banica A., Gherman B., Development of a Control System and Functional Validation of a Parallel Robot for Lower Limb Rehabilitation. *Actuators*. 2021; 10(10):277. <https://doi.org/10.3390/act10100277>

Nadas, I., Tucan, P., Gherman B., Banica A., Rednic V., Carbone G., Pisla D. "ON THE DESIGN AND VALIDATION OF A PARALLEL ROBOT FOR LOWER LIMB REHABILITATION" submitted in The Romanian Journal of Technical Sciences. Applied Mechanics.: Vol. 67 No. 2 (2022): The Romanian Journal of Technical Sciences. Applied Mechanics

List of patents

1.PARALLEL ROBOT FOR MEDICAL RECOVERY OF LOWER LIMBS Publication/Patent Number: RO133815B1

Publication Date: 2021-10-29

Application Number: RO201900391

Application Date: 2019-06-27

Inventors : Carbone, Giuseppe Plitea, Nicolae Gherman, Bogdan George Vaida, Liviu Călin Pîslă, Doina Liana Bîrlescu, Iosif Crăciun, Cristea Florin **Nadăș, Iuliu Adrian** Tucan, Paul George Mihai Pop, Nicoleta Maria

Assignee: UNIVERSITATEA TEHNICĂ DIN CLUJ-NAPOCA

IPC: A61H1/02

2.INNOVATIVE CABLE SYSTEM FOR UPPER LIMB MOVEMENT REHABILITATION Publication/Patent Number: RO133876A2

Publication Date: 2020-02-28

Application Number: RO201800558

Application Date: 2018-07-31

Inventors : Carbone, Giuseppe Vaida, Liviu Călin Pîslă, Doina Liana **Nadăș, Iuliu Adrian**

Assignee: UNIVERSITATEA TEHNICĂ DIN CLUJ-NAPOCA

IPC: B25J9/00

3.PORTABLE REHABILITATION DEVICE WITH CABLES Publication/Patent Number: RO133877A2

Publication Date: 2020-02-28

Application Number: RO201800559

Application Date: 2018-07-31

Inventors : Carbone, Giuseppe Vaida, Liviu Călin Pîslă, Doina Liana **Nadăș, Iuliu Adrian** Cafolla, Daniele Russo, Matteo Chaparro-Rico, Betsy Dayana Marcela

Date:

19.01.2023

Signature

