Curriculum Vitae

Dr. Levente Dénes

Since he entered the area of wood science and technology, Levente Denes has been fully devoted towards developing new and innovative wood-based products and processing technologies. With five years of industrial and twenty years of academic experience Levente Denes has been part of many important natural resources related research, curricula development and industrial projects. He specialized in wood composites, furniture design and manufacturing, and possesses a strong engineering background for converting the bioresources into value-added products. His current researches are oriented towards hardwood cross laminated timber, additive manufacturing of biomaterials, converting the underutilized, low grade Applachian hardwoods into sustainable value-added products.

Levente Denes graduated from the Faculty of Wood Engineering, Transylvania University of Brasov, Romania and completed his PhD studies at the University of Sopron, Hungary. His thesis project described the development of a new structural wood composite product group from veneer waste using the design of experiments and response surface methodology. The study resulted in two patent application.

Before joining the School of Natural Resources, West Virginia University as Associate Professor in Sustainable Biomaterials Dr. Denes worked as Associate Professor at the University of Sopron.

He also served as Department Head of the Institute of Product Development and Manufacturing Technologies (2009-2013) and Associate Dean for Research and International Relations in the Faculty of Wood Engineering and Creative Industries, Sopron, Hungary (2015-2018). In the last two years he worked also as R&D&I Manager for the Transylvanian Furniture Cluster, Cluj-Napoca, Romania.

Dr. Denes`s research interests are related to the sustainable utilization of wood and wood-based materials, product development, hybrid wood composites, furniture design and manufacturing technologies, and more recently the additive manufacturing technologies of biomaterials. He has co-authored over 100 scientific and technical publications, leaded or participated in several research projects in the wood science domain, filed six patent applications. In his new position he teaches subjects related to physical properties of wood, building materials and sustainable construction, wood machining and develops currently a new course in additive manufacturing of biomaterials.

Dr. Denes`s professional and personal activities are governed by the slogan he formulated several years ago when he used to be the coordinator of the University of Sopron`s Industrial Design BSc and MSc programs:

*“The value is the measure,*

*the measure is the value”*

**Education and training:**

*Education*:

1999-2002: Ph.D. studies, Wood Processing program, Faculty of Wood Industry, University of West Hungary, Sopron, tutor: Prof. Dr. Zsolt Kovács University of West Hungary, Faculty of Wood Sciences

1994-1997: Master of Wood Sciences, major in Wood Technology, Transylvania University of Brasov, Faculty of Wood Industry, Romania

1991-1994: Bachelor of Wood Sciences, major in Wood Technology, Transylvania University of Brasov, Faculty of Wood Industry, Romania

1987-1991: Tamási Áron Gymnasium, Odorheiu-Secuiesc, Romania

*Trainings*:

2005, 2014 Sopron: Application rapporteur, University of West Hungary, Faculty of Economics

1998, Cluj Napoca, Romania: ISO 9000 Quality Management systems, quality professionals training, Romanian Association for Quality

1995, Brasov: High efficiency Teams Organization, trainee: István Szakács, economic director of Dédász Co.

1989-1990, Odorheiu-Secuiesc, wood carving

*Qualifications:*

Wood Engineer, Major in Wood Technology

*Degrees:*

Habilitated Doctor, 2016 University of West Hungary

Doctor of Philosophy in Material Sciences and Technologies, 2006 University of West Hungary

Master of Science in Wood Engineering, 1997 Transylvania University of Brasov

Bachelor of Science in Wood Engineering, 1994 Transylvania University of Brasov

**Academic Honors and Awards**

2023 IDEA Faculty Fellow, WVU

2015 Honorable Mention Student Scientific Conference – national level

2014 Zoltan Magyary- Scholarship of Excellence

2012 Excellent Researcher – University of West Hungary

2012 Honorable Mention Student Scientific Conference – faculty level

2011 Honorable Mention Student Scientific Conference – national level

1992-1994 National scholarship

**International field trips:**

08.07.2008 – 07.06.2009: Visiting Professor, West Virginia Univ., Div. of Forestry & Natural Resources, USA

08.15.2007.- 02.15.2008: Research Associate, West Virginia Univ., Div. of Forestry & Natural Resources, USA

15.01.2007.- 15.05.2007: Post Doctoral Fellow, West Virginia University, Division of Forestry & Natural Resources, USA

28.02.2002.- 02.07.2002: Research Scholar, Research Challenge Grant Program: Veneer Strip Lumber (VSL), a new engineered wood product created from mill waste, West Virginia University, Division of Forestry & Natural Resources USA, supervisor: Dr. Láng Elemér, Associate Professor

**Work experience:**

2021 – pres.: Associate Professor in Sustainable Biomaterials, Davis College of Agriculture, Natural Resources and Design, West Virginia University

2020 – 2021: R&D&I Director, Transylvania Furniture Cluster, Cluj-Napoca, Romania

2018 – 2020: Project manager, Transylvania Furniture Cluster, Cluj-Napoca, Romania

2013 - 2021: Associate Professor, Institute of Wood Based Products and Technologies, Simonyi Karoly Faculty of Engineering, Wood Sciences and Applied Arts, University of West Hungary

2008 – 2013: Associate Professor, Institute of Product Development and Technology, Faculty of Wood Sciences, University of West Hungary

2005 – 2008: Assistant Professor, Institute of Product Development and Technology, Faculty of Wood Sciences, University of West Hungary

2004 –2005: Assistant lecturer, Institute of Product Development and Technology, Faculty of Wood Sciences, University of West Hungary

2002 – 2004: Graduate Research Assistant, Institute of Product Development and Technology, Faculty of Wood Sciences, University of West Hungary

2002 – 2002: Research Assistant, Division of Forestry, West Virginia University, U.S.A.

2001 – 2001: Quality Engineer, Swedwood Sopron Bútor Ltd., Sopron

1997 – 1999: Furniture Design Engineer, S.C. FAMOS S:A., Furniture Manufacturing Company, Romania

**Managerial experience:**

2020 – 2021: R&D&I Director, Transylvania Furniture Cluster, Cluj-Napoca, Romania

2015 – 2018: Associate Dean for Research and International Relations, Faculty of Wood Sciences, University of West Hungary

2013 – 2018: Director, Natural Resources Research Center, University of West Hungary

2013 – 2021: Head of Division, Central Testing Laboratory, Product Testing Division, UWH

2012 – 2020: Program Coordinator, Industrial Design, University of West Hungary

2011 – 2013: Associate Dean for Finance, Faculty of Wood Sciences, University of West Hungary

2009 – 2013: Head of Department, Institute of Product Development and Technology, Faculty of Wood Sciences, University of West Hungary

2005 – 2013: Deputy Director FAIMEI -Material and Product Testing Laboratory, University of West Hungary

**Professional Affiliation:**

1994 - 1999 Hungarian Technical and Scientific Association from Transylvania, Division of Wood Industry, Member

2006 - Scientific Association from Sopron, member

2007 - Hungarian Academy of Science, General Assembly Member

2006 - Scientific Association of Wood Industry member

2008 2009 Forest Products Society

2008 - Society of Wood Science and Technology

2011 - 2012 Society of Wood Science and Technology, Visiting Scientist Committee Member

2011 - 2012 Society of Wood Science and Technology, Membership Committee Member

2002 - 2007 COST Action E29 - Innovative Timber and Composite Elements/ Components for Buildings – Management Committee Member

2005 - 2010 COST Action E51 - Quality Control for Wood and Wood Products Management Committee Member

2006 - COST Domain Committee member for Forests, their Products and Services, Wood Technology Expert

2010 - Hungarian Standards Institution, Technical Committee Member, MSZT MB101 – Doors and windows

2010 - 2015 Management Committee Member, Hungarian Furniture Association

2012 - Hungarian Standards Institution, Technical Committee President, MSZT MB501 – Furniture

2015 - Society of Wood Science and Technology, Accreditation Committee Member

2021 - Forest Products Society

**Language Skills:**

English, Romanian – fluent

Hungarian (native)

**Technical Skills:**

Product development, wood and wood-based materials utilization and processing, process engineering, advanced manufacturing, additive manufacturing, rapid prototyping, quality assurance and management project management, statistical analysis, wood machining

**Digital Skills:**

AutoCad, Statistica, SolidWorks, Microsoft Office, Additive Manufacturing, TechScan,

**Design Skills:**

Creative thinking, sustainable product development, design methodologies, inventive problem solving, rapid prototyping, modeling, design for assembling and manufacturing

**Soft Skills:**

Complex problem solving, team work, creativity, strategic planning, responsibility, good writing

**Curses Taught:**

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| --- | --- | --- | --- | --- |
| **Code** | **Course Title** | **Credit** | **Term** | **Level** |
| FNRS245 | Residential Building Materials | 3 | Fall | Undergraduate |
| FNRS360 | Forest Products Decision Making | 4 | Fall/odd yrs. | Undergraduate |
| FNRS333 | Wood Machining | 3 | Fall/even yrs. | Undergraduate |
| FNRS480 | Senior Projects 1, 50% | 2 | Fall | Undergraduate |
| FNRS695 | Independent Study | 3 | Fall | Graduate |
| FNRS797 | Research | 4 | Fall | Graduate |
| FNRS340 | Physical Properties of Wood | 3 | Spring | Undergraduate |
| FNRS320 | Sustainable Construction | 3 | Spring | Undergraduate |
| FNRS480 | Senior Projects 2, 50% | 2 | Spring | Undergraduate |
| FNRS695 | Independent Study | 3 | Spring | Graduate |
| FNRS797 | Research | 4 | Spring | Graduate |

**Research Activities:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Code** | **Project Title** | **Duration** | **Budget** | **Role** |
| 11075 | Commercializing Hardwood Cross-Laminated Timbers Through Innovative Design and Technology Transfer | 2023-2026 | $460,000 | PI |
| 11110 | A Path Towards Cost Effective Production of Hardwood CLT | 2023-2025 | $200,000 | PI |
| DE-EE0010699 | Hardwood Cross Laminated Timbers for Energy Efficient Modular Homes | 2023-2024 | $1,500,000 | PI |
| 12845 | The Davis College Natural Resources Building | 2023-2025 | $100,000 | Co-PI |
| 2018-DG-11420004-119 | Producing CLT panels from Low Value Appalachian Hardwoods: Part 2, Demonstrating CLT Panel Production, Properties, and Use | 2018-2024 | $295,000 | Co-PI |
| WV-19663-19 | Certifying Yellow-Poplar for use in commercial CLT panel manufacturing | 2019-2024 | $368,000 | Co-PI |

**Previous Research Activities:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Project Title** | **Code** | **Duration** | **Budget** | **Role** |
| Development of Lignocellulose Based Filaments for Additive Production Technologies, 3D Printing on Lignocellulosic Base | FSA-SKK/06 | 2018 | 64,000 EUR | Principal investigator |
| Development of an intelligent window system | FSA-SKK/08 | 2018 | 61,500 EUR | Principal Investigator |
| “QUALITAS” Quality Development of High Education in Sopron, Szombathely and Tata | EFOP 3.4.3 | 2017-2021 | 4,63M EUR | Leader of Workgroup 3, Internationalization at Faculty level |
| Energy Efficient Buildings | TÁMOP 2.1.1/A | 2012-2014 |  | Subproject leader (Energy efficiency of windows) |
| Utilization of black locust in upholstery | TÉT HU-GR | 2012-2014 | 6,600 EUR | Principal Investigator |
| REuse&Redesign plus, product development from secondary raw materials and waste | AT-HU Crossborder cooperation program | 2012-2014 | 80,000 EUR | Principal Investigator |
| Utilization of the thermally modified wood for new product development | TÉT HU-China | 2011-2013 | 18,000 EUR | Principal Investigator |
| Technical and innovational background development of the regional economy growth | TÁMOP 4.2.1/B | 2010-2012 | 205,000 EUR | Subproject leader (Intelligent products development) |
| Hybrid structural wood composites engineered from underutilized hardwood species combined with reformulated waste materials, Wood Utilization Research Project, West Virginia University, USA | Wood Utilization Program | 2008-2009 | 60,000 USD | Principal Investigator |
| Hybrid structural wood composites engineered from underutilized hardwood species combined with reformulated waste materials, Wood Utilization Research Project, West Virginia University, USA | Wood Utilization Program | 2007-2008 | 60,000 USD | Research Associate |
| **Innovation projects** |  |  |  |  |
| Ergonomic Analysis of Office Workchairs | Linea Furniture Ltd. | 2012 | 7,000 EUR | Principal Investigator |
| Office furniture development based on new trends | Garzon Furniture Ltd. | 2011 | 4,100 EUR | Principal Investigator |
| Laboratory Furniture Development | Falco Sopron Furniture Ltd. | 2011 | 2,500 EUR | Principal Investigator |
| Technology development and kitchen furniture development | Délity Furniture Ltd. | 2011 | 3,700 EUR | Principal Investigator |
| Development of windows used in historical buildings in order to enhance the indoor comfort | ROTO ELZETT Ltd. | 2011 | 6,750 EUR | Principal Investigator |
| Interior design of the bus station in Keszthely | Zala Volán Privately Held Company | 2011 | 15,000 EUR | Principal Investigator |

**10/02/2023**