Detailed Program by Session Category

***Note* The schedule is subject to change according to the on-site circumstances.**

Poster Presentations (Student Competition)

Date & Time: June 8 (Mon), 16:00~18:00
Location: Lobby of Hall E

Category	No.	Title	Authors
I-1. Fundamentals and Frontiers in Wood Physics and Mechanics	1	Computational Modeling for Predicting Moisture Content Change of Wood During Air Drying	Seong-Hyun LEE (Department of Agriculture, Forestry and Bioresources, Seoul National University, KR), Bat-Uchral BATJARGAL (Department of Agriculture, Forestry and Bioresources, Seoul National University, MN), Minjee KANG (Department of Agriculture, Forestry and Bioresources, Seoul National University, KR), Hwanmyeong YEO (Department of Agriculture, Forestry and Bioresources, Seoul National University, KR)
	2	Correlation between compression stiffness and strength perpendicular to grain in small clear specimen determined in uniform compression and partial contact (Hertzian) compression	Elijah OLAWUMI (Department of Wood Science and Engineering, Oregon State University, US), Lech MUSZYNSKI (Department of Wood Science and Engineering, Oregon State University, US), Michelle JAYAWICKRAMA (Department of Wood Science and Engineering, Oregon State University, US)
	3	Review of the Relationship between Wood Shrinkage Behavior and Anatomical Characteristics	Min Ji KIM (Chungbuk National University, KR), Min soon PARK (Chungbuk National University, KR), Kug Bo SHIM (Chungbuk National University, KR)
	4	The Effects and Mechanism of High Temperature Saturatd Steam Heat Treatment on moso bamboo (Phyllostachys edulis)	Shumin YANG (International Centre of Bamboo and Rattan, CN), Ziqiao XUE (International Centre of Bamboo and Rattan, CN), Fushuai SUN (International Centre of Bamboo and Rattan, CN)
I-2. Fundamentals in Wood Chemistry and Biorefining	5	Multiscale Structural Evolution of Lignin under Long-Term UV Exposure: Mechanism and Stabilization Strategies	Chaeeun KIM (Seoul National University, KR), Seungoh JUNG (Seoul National University, KR), Jungkyu KIM (Seoul National University, KR), Junsik BANG (Seoul National University, KR), Sangwoo PARK (Seoul National University, KR), Seon-Gyeong KIM (Seoul National University, KR), Dawoon SEO (Seoul National University, KR), Dongho SHIN (Seoul National University, KR), Suhyun OK (Seoul National University, KR), Chaewoo JEONG (Seoul National University, KR), In-Gyu CHOI (Seoul National University, KR), Hyo Won KWAK (Seoul National University, KR)
	6	From Mangrove Bark to Bio-Adhesive: Enhancing Tannin Extraction from Ceriops decandra (Griff.) Ding Hou Bark for Sustainable Particleboard Production	Sagar BISHNU (Forestry and Wood Technology Discipline, Khulna University, Bangladesh, BD), Sazzad HOSSEN (Forestry and Wood Technology Discipline, Khulna University, Bangladesh, BD), Sandhi MAHAMUD SHAKIL (Forestry and Wood Technology Discipline, Khulna University, Bangladesh, BD), MD ASHADUZZAMAN (Forestry and Wood Technology Discipline, Khulna University, Bangladesh, BD)
	7	Plant-Derived Biopreservatives for Sustainable Wood Protection: A Biorefinary Based Approach	Shivani BHARDWAJ (Student, IN), Rajneesh KUMAR (Assistant Professor, IN), Yash Pal SHARMA (Head and Professor, IN)
	8	Valorization of Bamboo Tree-Derived Lignin for High-Value Functional Biomaterials: Toward Sustainable Wood-Based Materials	Hyun-Jae SHIN (Chosun University, KR)
I-3. New Insights into Wood Biology	9	Analysis of anatomical discriminants of major commercial pinaceae species	Wooyoung LEE (Kangwon National University, KR), Minhyeok HAN (Kangwon National University, KR), Jongho KIM (Kangwon National University, KR)
I-4. Traditional Wood Care and Maintenance: Drying, Preservation, Machining, Finishing, etc.	10	EVALUATING THE NATURAL DURABILITY PROPERTIES OF Albizia Ferruginea, (Guill. & Perr.) Benth; A LESSER-USED TIMBER SPECIES FROM THE EASTERN PART OF GHANA	SAMUEL AMPADU DWAMENA (Krobea Asante Technical Institute, GH)
	11	Early Decay Detection in Mass Timber Using Resistance Drilling: Correlation with Mass Loss and Density Changes in CLT and MPP	Opeyemi ODULE (Oregon State University, US), Gerald PRESLEY (Oregon State University, US), Mariapaola RIGGIO (Oregon State University, US), Laurence SCHIMLECK (Oregon State University, US), Vahid NASIR (Oregon State University, US)
	12	Termite Prevention and Monitoring for the Care and Maintenance of a Traditional Wooden Architecture: The Daeungjeon Hall of Ssanggyesa Temple, Nonsan (National Heritage)	Ju-Eun BAEK (Dept. of Heritage Science and Technology Studies, Korea National University of Heritage, KR), Hae-Ree PARK (Jinsung Cultural Heritage Conservation, KR), Tae-Gyun YEOM (Jinsung Cultural Heritage Conservation, KR), Jung-Hae PARK (Jinsung Cultural Heritage Conservation, KR), Soo-Chul KIM (Dept. of Conservation Science, Korea National University of Heritage, KR)

Category	No.	Title	Authors
	13	Effect of Surface Roughness on Moisture Uptake in Coated Exterior Wood Cladding: An X-ray Computed Tomography (CT) Study	Foteini LAGIOU (NTNU Norwegian University of Science and Technology, NO), Dick SANDBERG (NTNU Norwegian University of Science and Technology, NO), Alemayehu GEBREMEDHIN (NTNU Norwegian University of Science and Technology, NO), Lars HANSSON (NTNU Norwegian University of Science and Technology, NO), Johannes HUBER (Wood KPlus Austria, AT)
	14	Wooden Dowel vs. Epoxy Resin: Comparative Study on Timber Heritage Surface Repair Techniques	Ga-Won LEE (Chungbuk National University, KR), Kug-Bo SHIM (Chungbuk National University, KR), Hyeong Jun HAN (Chungbuk National University, KR), Gyu-Seong HAN (Chungbuk National University, KR)
II-1. Advanced Timber Engineering and Hybrid Structural Systems	15	Structural Behaviour of Screw-Laminated Truss Members Assembled from Short-Length Reclaimed Timber	Donat AGAJ (Norwegian University of Science and Technology, NO), Dick SANDBERG (Norwegian University of Science and Technology, NO)
	16	Cyclic Performance of a Full-Scale Glued-in Rod Moment Connection	Min-Jeong KIM (Seoul National University, KR), Ryul GWANG (Seoul National University, KR), Kyung-Sun AHN (Seoul National University, KR), Hae-Gyu LEE (Seoul National University, KR), Jung-Kwon OH (Seoul National University, KR)
	17	Failure Mode Analysis of Pre-Cambered Glulam Beams Under Dead-Load-Compensating Curvature	Gwang-Ryul LEE (Seoul National University, KR), Kyung-Sun AHN (Seoul National University, KR), Min-Jeong KIM (Seoul National University, KR), HaeGyu LEE (Seoul National University, KR), Jung-Kwon OH (Seoul National University, KR)
	18	Anatomy Informed Intelligent 2D Mapping for Evaluating Localized Properties of Large Diameter Timber Members	Ho-Jeong CHO (Chonnam National University, KR), Je-Gwan JOUNG (Chonnam National University, KR), Chang-Jin LEE (Jeonbuk National University, KR), Sung-Jun PANG (Chonnam National University, KR)
III-1. Innovations and Opportunities in Bio-based Nano Composites and Multi-Functional Hybrid Materials	19	Construction of Bio-Based Adsorbent Networks: Crosslinking Aminated Lignin with Dialdehyde Xylan for Efficient Pd Capture	Dawoon SEO (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Junsik BANG (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Sangwoo PARK (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Jungkyu KIM (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Seunoh JUNG (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Seon-Gyeong KIM (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Chaeeun KIM (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Dongho SHIN (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Suhyun OK (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Chaewoo JEONG (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Hyo Won KWAK (Research Institute of Agriculture and Life Sciences, Seoul National University, KR)
	20	From Plant Proteins to Durable Wood Adhesives using thermo-mechanical treatments	Malik RITIKA (BOKU University, AT)
	21	Fabrication of HKUST-1 Nanozyme Supported on Sulfated Cellulose Nanofibril and its Laccase-like Activity	Dong-Suk JEON (Kangwon National University, KR), Ju-Won JIN (Kangwon National University, KR), Seung-Woo CHO (Kangwon National University, KR), Song-Yi HAN (Kangwon National University, KR), Rajkumar BANDI (Kangwon National University, IN), Ramakrishna DADIGALA (Kangwon National University, IN), Gu-Joong KWON (Kangwon National University, KR), Seung-Hwan LEE (Kangwon National University, KR)
	22	Chemical Engineering of Oxypropylated Lignin toward Flame-Retardant Rigid Polyurethane Foams	Dongho SHIN (Seoul National University, KR), Sangwoo PARK (Seoul National University, KR), Junsik BANG (Seoul National University, KR), Jungkyu KIM (Seoul National University, KR), Seungoh JUNG (Seoul National University, KR), Seon-Gyeong KIM (Seoul National University, KR), Dawoon SEO (Seoul National University, KR), Chaeeun KIM (Seoul National University, KR), Suhyun OK (Seoul National University, KR), Chaewoo JEONG (Seoul National University, KR), Hwanmyeong YEO (Seoul National University, KR), Hyo Won KWAK (Seoul National University, KR)
	23	Rapid Hydrothermal Engineering of Alkali Lignin toward Fluorescent Carbon Quantum Dots: Response Surface Optimization	Suhyun OK (Seoul National University, KR), Sangwoo PARK (Seoul National University, KR), Junsik BANG (Seoul National University, KR), Jungkyu KIM (Seoul National University, KR), Seungoh JUNG (Seoul National University, KR), Seon-Gyeong KIM (Seoul National University, KR), Chaeeun KIM (Seoul National University, KR), Dawoon SEO (Seoul National University, KR), Dongho SHIN (Seoul National University, KR), Chaewoo JEONG (Seoul National University, KR), In-Gyu CHOI (Seoul National University, KR), Hyo Won KWAK (Seoul National University, KR)

Category	No.	Title	Authors
	24	Wood-Derived Quaternized Lignin Nanoparticles for Adsorptive Removal of PFAS in Aqueous Systems	Chaewoo JEONG (Seoul National University, KR), Sangwoo PARK (Seoul National University, KR), Junsik BANG (Seoul National University, KR), Jungkyu KIM (Seoul National University, KR), Seungoh JUNG (Seoul National University, KR), Seon-Gyeong KIM (Seoul National University, KR), Chaeeun KIM (Seoul National University, KR), Dawoon SEO (Seoul National University, KR), Dongho SHIN (Seoul National University, KR), Su Hyun OK (Seoul National University, KR), Hyo Won KWAK (Seoul National University, KR)
	25	Artificial Bark-Inspired Flame-Retardant Wood via Polyelectrolyte Complex Formation of Phosphorylated Nanocellulose	Heesu YOO (Kyungpook National University, KR), Bonwook KOO (Kyungpook National University, KR)
	26	Wood-Based Oriented Object Deposition for Programmable Mechanical and 3D Fluidic Control	Donghyeok KANG (Department of Agriculture, Forestry, and Bioresources, Seoul National University, KR), Yeonsoo KIM (Department of Agriculture, Forestry, and Bioresources, Seoul National University, KR), Sungchul SHIN (Research Institute of Agriculture and Life Sciences, Seoul National University, KR)
	27	Enhanced Flame Retardancy and Antifungal Durability of Wood via Surface Delignification-Assisted Bio-based Modification	Yejin KIM (Kyungpook National University, KR), Bonwook KOO (Kyungpook National University, KR)
	28	Development of lignocellulosic lightweight foams for cavity insulation in beverage coolers using cellulose nanofibrils (CNFs) as a binder	Quazeem TIAMIYU (School of Forest Resources, University of Maine, Orono, ME, US), Mehdi TAJVIDI (School of Forest Resources, University of Maine, Orono, ME, US)
	29	Phenolated Lignin for Biobased Functional Nanomaterials: Tailoring via Nanoprecipitation and Solvent Exchange	Azma FAKHAR (Seoul National University, KR), Joon Weon CHOI (Seoul National University, KR)
IV-1. Circular Economy, Climate Mitigation, and Socio-Economic Impacts	30	Operationalizing Lean Construction for Construction-Phase Decarbonization in Mass Timber Buildings: A Process-Based Life Cycle Assessment Framework	Mahboobeh HEMMATI (University of Arkansas, US), Tahar MESSADI (Universty of Arkansas, US), Moein HEMMATI (University of Arkansas, US), Saghar MOHSENIAN (University of Arkansas, US)
V-2. New Approaches to Wood Sector Education and Workforce Development	31	Quantitative Analysis of Tree Structural Stability: Sensitivity to Cavity Location, Size, and Wood Material Properties	Je-Gwan JOUNG (Chonnam National University, KR), Ho-Jeong CHO (Chonnam National University, KR), Ji-Won SON (Korea Heritage Service, KR), Sung-Jung PANG (Chonnam National University, KR)
VI-1. Early Stage Researcher (ESR) 3-Minute Talks	32	A Comparative LCA of Mass Timber and Steel Structures	Mahboobeh HEMMATI (University of Arkansas, US), Tahar MESSADI (University of Arkansas, US), Hongmei GU (Forest Products Laboratory, USDA Forest Service, US), Moein HEMMATI (University of Arkansas, US), Jacob SEDDELMEYER (University of Arkansas, US)

June 8 (Mon) – Poster Presentations

Date & Time: June 8 (Mon), 16:00~18:00
Location: Lobby of Hall E

Category	No.	Title	Authors
I-1. Fundamentals and Frontiers in Wood Physics and Mechanics	1	Pure and mixed stands wood density and productivity in Lithuania	Benas SILINSKAS (Agriculture Academy, Faculty of Forest Sciences and Ecology, Vytautas Magnus University, Kaunas, Lithuania, LT), Edgaras LINKEVICIUS (Agriculture Academy, Faculty of Forest Sciences and Ecology, Vytautas Magnus University, Kaunas, Lithuania, LT), Lina BENIUSIENE (Institute of Forestry, Lithuanian Research Centre for Agriculture and Forestry, Kaunas, Lithuania, LT)
	2	Investigation of Structural Performance and Lignin Welding Stability of Wooden Nails in Timber-Concrete Composite systems	Kyung-Sun AHN (Seoul National University, KR), Jun Seo PARK (Seoul National University, KR), Min-Jeong KIM (Seoul National University, KR), Haegyu LEE (Seoul National University, KR), Gwang-Ryul LEE (Seoul National University, KR), Jung-Kwon OH (Seoul National University, KR)
	3	Elm Bark Powder-Modified Soy Protein Adhesive with Enhanced Strength and Mold Resistance for Engineered Wood Panels	Wenbin YUAN (Nanjing Forestry University, CN), An MENG (Nanjing Forestry University, CN), Xiaona LI (Nanjing Forestry University, Yantai University, CN), Li JIANZHANG (Nanjing Forestry University, Beijing Forestry University, CN), Changlei XIA (Nanjing Forestry University, Guangxi University, CN)
	4	Improving the weather resistance of wood by impregnation with active aminated low molecular weight alkali lignin	Qiu ZHE (Key Laboratory of Bio-based Material Science and Technology (Ministry of Education), College of Material Science and Engineering, Northeast Forestry University, CN), Yu YANG (Key Laboratory of Bio-based Material Science and Technology (Ministry of Education), College of Material Science and Engineering, Northeast Forestry University, CN), He ZENGCHENG (Key Laboratory of Bio-based Material Science and Technology (Ministry of Education), College of Material Science and Engineering, Northeast Forestry University, CN), Zhang TIANPENG (Key Laboratory of Bio-based Material Science and Technology (Ministry of Education), College of Material Science and Engineering, Northeast Forestry University, CN), Xiao ZEFANG (Key Laboratory of Bio-based Material Science and Technology (Ministry of Education), College of Material Science and Engineering, Northeast Forestry University, CN), Xie YANJUN (Key Laboratory of Bio-based Material Science and Technology (Ministry of Education), College of Material Science and Engineering, Northeast Forestry University, CN)
	5	Design of wooden multistable metamaterials based on fractal theory and their functionalization	Yushan YANG (Southwest Forestry University, CN), Jian QIU (Southwest Forestry University, CN)
I-2. Fundamentals in Wood Chemistry and Biorefining	6	Response Surface Optimisation of Peroxide-Assisted Torrefaction for Solid Biofuel Upgrading	Sunyong PARK (National Institute of Forest Science, KR), Jiwook YANG (National Institute of Forest Science, KR), Sungyeol KIM (National Institute of Forest Science, KR), Jaejung LEE (National Institute of Forest Science, KR)
	7	Evaluation of Cellulose Nanofiber Properties According to Manufacturing methods	Kyojung HWANG (National institute of Forest Science, KR), Jaejung LEE (National Institute of Forest Science, KR), Jimin LEE (National Institute of Forest Science, KR), Sang-Jin CHUN (National Institute of Forest Science, KR)
	8	Effect of sulfonation condition on the physicochemical characteristics of biochar-based catalyst	Jonghwa KIM (Korea Research Institute of Chemical Technology, KR), Jaeik LEE (Korea Research Institute of Chemical Technology, KR), Chan-Duck JUNG (Korea Research Institute of Chemical Technology, KR), Hae-min JO (Korea Research Institute of Chemical Technology, KR), June-Ho CHOI (Korea Research Institute of Chemical Technology, KR), Hoyong KIM (Korea Research Institute of Chemical Technology, KR)
	9	Continuous Bioelectrochemical CO2 Conversion using Forest-Derived Formate Dehydrogenase and Macroporous Carbon Electrodes	Sungyeol KIM (National Institute of Forest Science, KR), Jiwook YANG (National Institute of Forest Science, KR), Sunyong PARK (National Institute of Forest Science, KR), Sun-Hwa RYU (National Institute of Forest Science, KR)
	10	Enhancement and Comparison of Enzymatic Hydrolysis Efficiency of Hydrated-Milled Miscanthus via Binary and Ternary Acetic Acid-Based Deep Eutectic Solvent Pretreatment	Jaeik LEE (Korea Research Institute of Chemical Technology, Kyungpook National University, KR), Jonghwa KIM (Korea Research Institute of Chemical Technology, KR), Chan-Duck JUNG (Korea Research Institute of Chemical Technology, KR), Hae-Min JO (Korea Research Institute of Chemical Technology, KR), June-Ho CHOI (Korea Research Institute of Chemical Technology, KR), Bonwook KOO (Kyungpook National University, KR), Hoyong KIM (Korea Research Institute of Chemical Technology, KR)
	11	Recombinant Production of Plant-derived Expansin for Biological Pretreatment of Cellulose	Yongtae YU (Kangwon National University, KR), Hyunjun KO (Kangwon National University, KR)
	12	Hydrogen Peroxide-Citric Acid (HPCA) Oxidative System for Delignification of Wood Veneer toward Translucent Wood	Ji-Yeon SIM (Kangwon National University, KR), Jeongsu BYUN (Kangwon National University, KR), Seungsu PARK (Kangwon National University, KR), Byeongho KIM (Kangwon National University, KR), Se-Yeong PARK (Kangwon National University, KR)

Category	No.	Title	Authors
	13	Development of Sustainable Superabsorbent Materials from Cellulose-Based Biomass Incorporating Organic and Inorganic Particles	Sungoo KIM (National Institute of Forest Science, KR), Sang-Jin CHUN (National Institute of Forest Science, KR), Jimin LEE (National Institute of Forest Science, KR), Dokyung LEE (National Institute of Forest Science, KR), Yujin HWANG (National Institute of Forest Science, KR), Youngsu KIM (National Institute of Forest Science, KR)
	14	Comparative Analysis of Anionic Functionalization of Cellulose: Substitution Mechanisms, Structural Characteristics, and Charge Expression	Jimin LEE (National Institute of Forest Science, KR), Sang-Jin CHUN (National Institute of Forest Science, KR), Sungoo KIM (National Institute of Forest Science, KR), Dokyung LEE (National Institute of Forest Science, KR), Yujin HWANG (National Institute of Forest Science, KR), Youngsu KIM (National Institute of Forest Science, KR)
	15	Improving Lignin Purity in Supercritical Water-Treatment Residues via Selective Removal of Residual Cellulose Using a ZnCl2 Aqueous Non-Derivatizing Process	Tae-in BAN (Forest Industrial Materials Division, National Institute of Forest Science, Republic of Korea, KR), Soo-Kyeong JANG (Forest Industrial Materials Division, National Institute of Forest Science, Republic of Korea, KR)
	16	Anti-inflammatory Effects of Alnus hirsuta Extracts on an In Vitro Periodontal Inflammation Model Using Human Gingival Fibroblast Cells	Hyoen Du JANG (Department of Forest Biomaterials Engineering, Kangwon National University, KR), Da Hyeon AN (Department of Forest Biomaterials Engineering, Kangwon National University, KR), Ye Eun KWON (Dr.Oregonin Inc.; Department of AI Biological Parts Materials Engineering, Nambu University, KR), Tae Hee KIM (Dr.Oregonin Inc.; Department of AI Biological Parts Materials Engineering, Nambu University, KR), Hyeon Ji KIM (Department of Pharmacology, School of Dentistry, Kyungpook National University, KR), Do-Yeon KIM (Department of Pharmacology, School of Dentistry, Kyungpook National University, KR), Sun Eun CHOI (Department of Forest Biomaterials Engineering, Kangwon National University; Dr.oregonin inc, KR)
	17	In Vitro Effects of Catechin Glycoside-Containing Extract from Ulmus macrocarpa on Periodontal Disease	Da Hyeon AN (Department of Forest Biomaterials Engineering, Kangwon National University, KR), Hyeon Du JANG (Department of Forest Biomaterials Engineering, Kangwon National University, KR), Tae Hee KIM (Dr.Oregonin Inc.; Department of AI Biological Parts Materials Engineering, Nambu University, KR), Ye Eun KWON (Dr.Oregonin Inc.; Department of AI Biological Parts Materials Engineering, Nambu University, KR), Hyeon Ji KIM (Department of Pharmacology, School of Dentistry, Kyungpook National University, KR), Do-Yeon KIM (Department of Pharmacology, School of Dentistry, Kyungpook National University, KR), Sun Eun CHOI (Department of Forest Biomaterials Engineering, Kangwon National University; Dr.Oregonin Inc., KR)
	18	An Eco-Friendly Alternative for the Wood Industry: A Formaldehyde-Free Pea Protein Bio-Adhesive with High Mechanical Strength	Jose Antonio SILVA GUZMAN (Departamento de Madera, Celulosa y Papel, Centro Universitario de Ciencias Exactas e Ingenierias, Universidad de Guadalajara. Guadalajara, Jalisco. Mexico., MX), Jesus Gerardo HERNANDEZ FIGUEROA (Departamento de Madera, Celulosa y Papel, Centro Universitario de Ciencias Exactas e Ingenierias, Universidad de Guadalajara. Guadalajara, Jalisco. Mexico., MX), Jose ANZALDO HENRNANDEZ (Departamento de Madera, Celulosa y Papel, Centro Universitario de Ciencias Exactas e Ingenierias, Universidad de Guadalajara. Guadalajara, Jalisco. Mexico., MX), Salvador GARCIA ENRIQUEZ (Departamento de Madera, Celulosa y Papel, Centro Universitario de Ciencias Exactas e Ingenierias, Universidad de Guadalajara. Guadalajara, Jalisco. Mexico., MX), Berenice CLIFTON GARCIA (Departamento de Madera, Celulosa y Papel, Centro Universitario de Ciencias Exactas e Ingenierias, Universidad de Guadalajara. Guadalajara, Jalisco. Mexico., MX), Jessica BADILLO CAMACHO (Departamento de Madera, Celulosa y Papel, Centro Universitario de Ciencias Exactas e Ingenierias, Universidad de Guadalajara. Guadalajara, Jalisco. Mexico., MX)
	19	Explainable Machine Learning Modeling for Bioactive Compound Recovery from Supercritical CO_2 Extraction Residues of Fraxinus mandshurica	Hyeon Cheol KIM (Gyeongsang National University, KR), Si Young HA (Gyeongsang National University, KR), Jae-Kyung YANG (Gyeongsang National University, KR)
	20	Tree-Based Machine Learning for Predicting Bioactive Compound Recovery from Ultrasonic-Assisted Extraction of Fraxinus mandshurica Leaves	Hyeon Cheol KIM (Gyeongsang National University, KR), Si Young HA (Gyeongsang National University, KR), Jae-Kyung YANG (Gyeongsang National University, KR)
	21	Integrated co-production biorefinery of Phyllostachys pubescens via NaOHHPAC pretreatment for biofuels, platform chemicals, and value-added products	Younho SONG (Bio-energy Research Center, Chonnam National University, KR), Seryung KIM (Bio-energy Research Center, Chonnam National University, KR), Hyeun-jong BAE (Department of Bioenergy Science and Technology, Chonnam National University, KR)
I-3. New Insights into Wood Biology	22	BioWdesign: Design-Driven Research on Biomimetic Mechanisms of Wood and Plants and Their Translation into an Innovative Wellbeing Office Furniture Collection	Zuzana TONCIKOVA (Technical Univesity in Zvolen, SK)

Category	No.	Title	Authors
	23	Effects of Basal Shoot Management on Growth characteristics and Bark Yield of Broussonetia kazinoki Sieb. (Daknamu)	Sora LEE (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Eon-ju JIN (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Bowook MOON (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Seokju KIM (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Soonduk KWON (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Hyung Won LEE (Forest Biomaterials Research Center, National Institute of Forest Science, KR)
	24	Strain-dependent degradation and basidiocarp formation of Inonotus obliquus on sapwood and heartwood of Alnus incana and Betula pendula	Ville-Oskari KOMU (University of Eastern Finland, FI)
	25	Contents of Sugars and Inorgaric elements of the sap from Acer pictum in Inje in 2025	Bowook MOON (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Sora LEE (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Hyung Won LEE (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Dongsoo KIM (Forest Biomaterials Research Center, NIFoS, KR), Seokju KIM (Forest Biomaterials Research Center, National Institute of Forest Science, KR)
	26	Biodegradation Potential of Polyethylene Terephthalate by Wood-Decaying Microbes	Sungmin LEE (Kangwon National Universtiy, KR), Hyunjun KO (Kangwon National Universtiy, KR)
	27	Growth Trait and Correlation Analysis of 30 Regional individuals of Broussonetia kazinoki Sieb. (Daknamu) over Three years	Sora LEE (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Bowook MOON (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Seokju KIM (Forest Biomaterials Research Center, National Institute of Forest Science, KR), Hyung Won LEE (Forest Biomaterials Research Center, National Institute of Forest Science, KR)
I-4. Traditional Wood Care and Maintenance: Drying, Preservation, Machining, Finishing, etc.	28	Preparation of wood bio-composites with low formaldehyde emission by application of modified natural polymers	Jan SEDLIACIK (Technical University in Zvolen, SK), Igor NOVAK (Polymer Institute, Slovak Academy of Sciences, SK), Angela KLEINOVA (Polymer Institute, Slovak Academy of Sciences, Slovakia, SK), Peter JURKOVIC (VIPO, a.s., SK), Jan MATYASOVSKY (VIPO, a.s., SK)
	29	How does RFD plasma treatment affect the chemical properties of steam-modified beech wood?	Peter JURKOVIC (VIPO, a.s., SK), Igor NOVAK (Polymer Institute, Slovak Academy of Sciences, SK), Matej MICUSIK (Polymer Institute, Slovak Academy of Sciences, SK), Jan MATYASOVSKY (VIPO, a.s., SK), Peter DUCHOVIC (VIPO, a.s., SK), Jan SEDLIACIK (Technical University in Zvolen, SK)
	30	Sustainable Particleboard Production Using Waste Sugar Beet Pulp: A Performance Evaluation	Volodymyr HAMANCHUK (Ukrainian National Forestry University in Lviv, UA), Jozef RAHEL (Mendel University in Brno, CZ), Tomas PIPISKA (Mendel University in Brno, CZ), Pavlo BEKHTA (Ukrainian National Forestry University in Lviv, UA), Jan SEDLIACIK (Technical University in Zvolen, SK)
	31	Performance of Particleboards with Reduced MUF Content via Lignosulfonate Substitution	Iryna LYTVYN (Ukrainian National Forestry University in Lviv, UA), Nataliya BEKHTA (Ukrainian National Forestry University in Lviv, UA), Ruslan KOZAK (Ukrainian National Forestry University in Lviv, UA), Iryna KUSNIAK (Ukrainian National Forestry University in Lviv, UA), Jan SEDLIACIK (Technical University in Zvolen, SK), Pavlo BEKHTA (Ukrainian National Forestry University in Lviv, UA)
	32	Evaluation of Moisture and Thermal Diffusion Characteristics of Korean Wood Species for Developing Property-Based Drying Groups	Yonggun PARK (National Institute of Forest Science, KR), Jong-Ik PARK (Daegu University & National Institute of Forest Science, KR), Min LEE (National Institute of Forest Science, KR), Wonho JIN (National Institute of Forest Science, KR), Soo-Hyeok LEE (National Institute of Forest Science, KR)
	33	Kinetics of colour development in European beech during steaming	Anze ZAJC (University of Ljubljana, Biotechnical faculty, SI), Jure ZIGON (University of Ljubljana, Biotechnical faculty, SI), Ales STRAZE (University of Ljubljana, Biotechnical faculty, SI)
	34	Low Steaming Treatment: Impacts on Wood Structure and Properties	Andrea R PROTO (Mediterranean University of Reggio Calabria, IT), Luigi TODARO (University of Basilicata, IT), Antonio ZUMBO (Mediterranean University of Reggio Calabria, IT), Angelo MAMMOLITI (Mediterranean University of Reggio Calabria, IT)
	35	Colour changes of heat-treated wood veneers made of ash and pine	Emilia-Adela MANEA SALCA (Transilvania University of Brasov, RO), Hikaru KOBORI (Shizuoka University, JP), Shigehiko SUZUKI (Shizuoka Professional University of Agriculture, JP), Tetsuya INAGAKI (Nagoya University, JP)
II-1. Advanced Timber Engineering and Hybrid Structural Systems	36	Fully Recyclable Wall Systems: Material Development and Performance Characterization	Ana PRSLJA (BOKU University, AT), Rupert WIMMER (Mendel University Brno, AT), Alaudini NURALI (BOKU University, AT), Falk LIEBNER (BOKU University, AT), Bernhard REINHOLZ (BOKU University, AT), Sara REICHENBACH (BOKU University, AT), Benjamin KROMOSER (BOKU University, AT)
	37	Moisture control considerations in hybird CLT walls for multi-story residential buildings	Yujin KANG (Dankook University, KR), Nam JIHEE (Yonsei University, KR), Park JI HUN (Yonsei University, KR), Kim SUMIN (Yonsei University, KR)

Category	No.	Title	Authors
	38	Manufacturing and Performance Evaluation of Novel CLT Structures	Levente DENES (West Virginia University, US)
II-2. Designing for Performance and Resilience in Residential Timber Structures	39	Experimental Validation of an Enhanced Fire-Resistance Design Approach for Korean Larch Glulam in Korean Standards	Sang-Hyun YOU (National Institute of Forest Science, KR), In-Hwan LEE (National Institute of Forest Science, KR), Chul-ki KIM (National Institute of Forest Science, KR), Sang-Jun LEE (National Institute of Forest Science, KR)
	40	A Study on the Improvement of Moisture Absorption and Desorption Performance of Japanese Cedar for Architectural Finishing Materials	Taejin LEE (Jeonbuk National University, KR), Heejun PARK (Jeonbuk National University, KR)
III-1. Innovations and Opportunities in Bio-based Nano Composites and Multi-Functional Hybrid Materials	41	Effect of Extraction Solvents on the Characteristics of Okara-derived Lipids and Their Potential for Functional Biocomposites	Hae-min JO (Korea Research Institute of Chemical Technology, KR), Jaeik LEE (Korea Research Institute of Chemical Technology, KR), Chan-Duck JUNG (Korea Research Institute of Chemical Technology, KR), Jonghwa KIM (Korea Research Institute of Chemical Technology, KR), June-Ho CHOI (Korea Research Institute of Chemical Technology, KR), Hoyong KIM (Korea Research Institute of Chemical Technology, KR)
	42	Carbonization Characteristics of Residues from Supercritical Water Hydrolysis of Biomass	Jiwook YANG (National Institute of Forest Science, KR), Sunyong PARK (National Institute of Forest Science, KR), Sungyeol KIM (National Institute of Forest Science, KR), Sun-Hwa RYU (National Institute of Forest Science, KR)
	43	Creation of Wood-based Hierarchical Superstructures via In Situ Growth of ZIF-8 for Enhancing Mechaical strength and Electromagnetic Shielding Performance	Haoran YE (Nanjing Forestry University, CN), Changlei XIA (Nanjing Forestry University, CN)
	44	Silylated Cellulose Nanofiber-based Thermal Stable Green Insulation Materials	Jaemin JO (Kyungpook National University, KR), Bonwook KOO (Kyungpook National University, KR)
	45	Reengineering Paper Tubes for the Circular Economy: How Cut Geometry and Cellulose Micro/Nanofibrils Boost Structural Performance	Gustavo TONOLI (Universidade Federal de Lavras, BR), Mariana NASCIMENTO (Universidade Federal de Lavras, BR), Thiago RAMOS (Universidade Federal de Lavras, BR), Anand SANADI (University OF Copenhagen, DK)
	46	Molded Pulp Packaging Made from Rasau Fibers: Effect of Different Part of Plant as Source of Fibers	Noviyanti NUGRAHENI (Sebangau National Park, ID), Naura HAZHIYAH S (IPB University, ID), Muhammad THORIQ S (IPB University, ID), Septian AHMAD KH (IPB University, ID), Eko PRASETYO (Borneo Orangutan Survival Foundation, ID), Lukmanul Hakim ZAINI (IPB University, ID)
	47	Decay resistance of mycelium-bound biocomposites for exterior uses	Marta CORTINA-ESCRIBANO (Natural Resources Institute Finland, FI), Aitor BARBERO-LOPEZ (Department of Chemistry and Sustainable Technology, University of Eastern Finland, FI), Henri VANHANEN (Natural Resources Institute Finland, Joensuu, FI), Veikko MOTTONEN (Natural Resources Institute Finland, Joensuu, FI), Jenni TIENAHO (Natural Resources Institute Finland, Viikki, FI), Antti HAAPALA (Department of Chemistry and Sustainable Technology, University of Eastern Finland, FI), Erkki VERKASALO (Natural Resources Institute Finland, Joensuu, FI)
	48	Mechanical performance of mycelium-based composites for insulation panel products	Henri VANHANEN (Natural Resources Institute Finland, LUKE, FI), Miriam KELLOCK (VTT Technical Research Centre of Finland, FI), Jari SIRVIO (VTT Technical Research Centre of Finland, FI), Elisa SPONLA (VTT Technical Research Centre of Finland, FI), Veikko MOTTONEN (Natural Resources Institute Finland, LUKE, FI), Marta CORTINA ESCRIBANO (Natural Resources Institute Finland, LUKE, FI)
III-2. Digitalization and Smart Processing Technology	49	Particleboard property prediction using X-ray computed tomography images and machine learning techniques	Shuoye CHEN (Kyoto University / Akita Prefectural University, JP), Hidefumi YAMAUCHI (Akita Prefectural University, JP), Kenji UMEMURA (Kyoto Univeristy, JP)
	50	Blockchain for Wood Supply Chain Traceability Ensuring Transparency Security and Sustainability	Andrea R PROTO (Mediterranean University of Reggio Calabria, IT), Antonio ZUMBO (Mediterranean University of Reggio Calabria, IT), Salvatore F. PAPANDREA (Mediterranean University of Reggio Calabria, IT), Giuseppe ZIMBALATTI (Mediterranean University of Reggio Calabria, IT)
IV-1. Circular Economy, Climate Mitigation, and Socio-Economic Impacts	51	Soil organic carbon change can reduce the climate mitigation potential of biofuel produced from forest residues	Kai LAN (North Carolina State University, US), Bingquan ZHANG (Yale University, US), Tessa LEE (Yale University, US), Yuan YAO (Yale University, US)
	52	Enhanced Enzymatic Hydrolysis and Valorization Waste Paper via Mechanical Refining Pretretment	Hansol PARK (Bio-energy Research Center, KR), My Hanh HUYNH (Department of Convergence Food Biotechnology, VN), Eun Jin CHO (Bio-energy Research Center, KR), Hyeun-Jong BAE (Department of Convergence Food Biotechnology, KR)
	53	Investigating Market Entry Barriers for Family Firms in the Wood-Processing Industry: Empirical Evidence from the Visegrad Group (V4)	Denis PINKA (Slovakia, SK), Mariana SEDLIACIKOVA (Slovakia, SK)

Category	No.	Title	Authors
	54	Effective Utilization of Forest-Derived Underutilized Resources: Molding and Application of Crushed Dwarf Bamboo Culms	Rikuho ONO (Hokkaido University, JP), Keiichi KODA (Hokkaido University, JP), Makoto KOBAYASHI (Hokkaido University, JP), Taichi MOTODA (Hokkaido University, JP), Yutaka TAMAI (Hokkaido University, JP), Henri VANHANEN (Luke, FI)
	55	Planting a line on the map: The Elements of Logistics in the Global Mass Timber Panels Industry	Lech MUSZYNSKI (Oregon State University, US)
	56	Effects of Product Characteristics on Carbon Displacement of Wood Products	Sae-Min YOON (National Institute of Forest Science, KR), Min-Ji KIM (National Institute of Forest Science, KR), Yong-Seok CHOI (National Institute of Forest Science, KR), SooYeon KWON (National Institute of Forest Science, KR), Sejong KIM (National Institute of Forest Science, KR), Myungkil KIM (National Institute of Forest Science, KR)
	57	Development and Validation of an Evaluation Model for Korean Wood Flooring to Reduce Elderly Fatigue and Enhance Walking Safety	Min-Ji KIM (National Institute of Forest Science, KR), Chang-Deuk EOM (National Institute of Forest Science, KR), Chun Young PARK (Korea Association of Wood Culture, KR)
	58	Enhancing Material Flow Analysis of Wood Resources in Korea through Improvements in Wood Utilization Statistics	Min-Ji KIM (National Institute of Forest Science, KR), Yong-Seok CHOI (National Institute of Forest Science, KR), Sae-Min YOON (National Institute of Forest Science, KR)
IV-2. Ecosystem Services and Biodiversity in Wood Value Chains	59	Empowering small-holder private forest owners in Europe by innovative business opportunities in forest-based bioeconomy value chains: the SMURF Forest Owners project	Uwe KIES (InnovaWood, BE), Radmila USTYCH (InnovaWood, UA), Claudia ANTONIOTTI (Xylofutur, FR), Abdelwahab BESSAAD (Xylofutur, FR), Adela TRASSIERRA VILLA (Cesefor, ES), Elena MORENO AMAT (Cesefor, ES), Alvaro PICARDO (Cesefor, ES)
	60	A Data Driven Framework for Environmental Sustainability in the Conservation and Rejuvenation of the River Ganga in the Indian Himalaya	Vasundhara UNIYAL (National Institute of Advanced Studies (NIAS) Indian Institute of Science (IISc) Campus Bangalore, IN)
V-1. Cultural Dimensions and Societal Perceptions of Wood Use	61	Renewing the Workspace: Modernizing Office Environments through Sustainable Systems	Rico RUFFINO (NC State University, US)
	62	The Indiana Wood Utilization Team	Henry QUESADA (Purdue University, US), Rado GAZO (Purdue University, US)
	63	Analysis of Cascading Use and Available Timber Resources Including Forest Disaster-Damaged Wood in the Korea	Chang-Deuk EOM (National Institute of Forest Science, KR), Yiyang QIAO (National Institute of Forest Science, KR), Myung-Kil KIM (National Institute of Forest Science, KR), Keon-Ho KIM (National Institute of Forest Science, KR)
	64	A Quantification Framework for Psychological Evaluation of Wooden Office Environments Integrating Qualitative and Quantitative Approaches	Takashi SHIMA (The University of Tokyo, JP), Mayu SHIRAKAWA (Seitoku Univeristy, JP), Yuko TSUNETSUGU (The University of Tokyo, JP)
V-2. New Approaches to Wood Sector Education and Workforce Development	65	"Illuminate Circularity" Immersive in Education	Rico RUFFINO (NC State University, US)
	66	The New European Bauhaus Academy: a novel skills, knowledge and innovation platform to boost sustainable construction within the built environment	Uwe KIES (InnovaWood, BE), Florence KUIJL (InnovaWood, FR), Andreja KUTNAR (InnoRenew CoE, UP IAM & UP FAMNIT, SI), Mike BURNARD (InnoRenew CoE, UP IAM & UP FAMNIT, SI), Michael SALKA (Institute for Advanced Architecture of Catalonia, ES)
	67	Transforming Underutilized Hardwood into Biophilic Learning Environments	Eva HAVIAROVA (Purdue University, US)
	68	Collaborative Modular Biophilic Design: An International Student-Built Wall Panel System for Wood Science Education	Eva HAVIAROVA (Purdue University, US), Zuzana TONCIKOVA (Technical University of Zvolen, SK), Lukas STEFANCIN (Technical University of Zvolen, SK), Albert SPALDING (Purdue University, US)
	69	Digital Transformation in Furniture Design: Emerging Trends and Implications for Design Education	Eva HAVIAROVA (Purdue University, US)
	70	Advancing Sustainability and Innovation in the Built Environment Through Wood and Bio-based Materials: Degree Programmes at the University of Primorska	Amy SIMMONS (University of Primorska, InnoRenew CoE, Andrej Marusic Institute, SI), Matthew SCHWARZKOPF (University of Primorska, InnoRenew CoE, Andrej Marusic Institute, SI), Andreja KUTNAR (University of Primorska, InnoRenew CoE, Andrej Marusic Institute, SI)
VII-1. IUFRO DIV.5. with 2026 SWST in Korea: Wood Properties and Utilization	71	Natural Durability of Softwood Species against Wood Decay Fungi	Jae-Hee JUNG (Department of Forest Products and Industry, National Institute of Forest Science, Republic of Korea, KR), Sun Lul KWON (Department of Forest Products and Industry, National Institute of Forest Science, Republic of Korea, KR), Hyun-Mi LEE (Department of Forest Products and Industry, National Institute of Forest Science, Republic of Korea, KR), Won-Joung HWANG (Department of Forest Products and Industry, National Institute of Forest Science, Republic of Korea, KR)
	72	Modeling the Relationship Between the Natural Frequency and Elastic Modulus of Table Tennis Blade Based on Laser Resonance	Weiqi LENG (Nanjing Forestry University, CN), Chao CHEN (Nanjing Forestry University, CN)

Category	No.	Title	Authors
	73	Improving dimensional stability and flame retardancy of fast-growing fir by aqueous vinyl modifier	Fanjun YU (Northeast Forestry University, CN)
	74	Exploring Structural Applications of Hardwood Roundwood	Daniel F. LLANA (Timber Products Laboratory, ICIFOR-INIA, CSIC, Madrid, ES), Eva HERMOSO (Timber Products Laboratory, ICIFOR-INIA, CSIC, Madrid, ES), Carlos OSUNA-SEQUERA (Timber Products Laboratory, ICIFOR-INIA, CSIC, Madrid, ES), Emilio A. LUENGO (Universidad Rey Juan Carlos URJC, Fuenlabrada, ES), David LORENZO (AITIM Wood Industry Association Research, Madrid, ES)

June 9 (Tue) & 10 (Wed) – Oral Presentations

I-1. Fundamentals and Frontiers in Wood Physics and Mechanics

Date & Time: June 9 (Tue), 10:30~12:00
Location: Room A
Moderator(s): Jongho KIM (Kangwon National University), Matthew SCHWARZKOPF (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
10:30~10:45	1	Intermittent Release of Wood-Emitted d-Limonene: Effects on Indoor Environmental Perception and Autonomic Regulation	Qifan WANG (Northwest A&F University, CN), Jun SHEN (Northeast Forestry University, CN)
10:45~11:00	2	Molecular investigation of bamboo during stress relaxation using custom-built mechanical loading platform coupled with Raman spectroscopy	Xinxin MA (International center for bamboo and rattan, CN)
11:00~11:15	3	Microscopic observation of the G layer of tension wood using a scanning probe microscope	Han WANG (Nagoya Univeristy, JP), Tamaki KUGIMIYA (Nagoya Univeristy, JP), Hiroyuki YAMAMOTO (Nagoya Univeristy, JP), Dan AOKI (Nagoya Univeristy, JP), Kazuhiko FUKUSHIMA (Nagoya Univeristy, JP), Masato YOSHIDA (Nagoya Univeristy, JP)
11:15~11:30	4	Dimensional stability and mechanical performance of exterior-grade particleboard and MDF after accelerated aging	Tiam MAHMOUDIAN (Université Laval, CA), Alain CLOUTIER (Université Laval, CA), Rosilei GARCIA (Université Laval, CA), Aziz LAGHDIR (SEREX, CA)
11:30~11:45	5	Engineering Characteristics of Structural Lumber from Small-Diameter Logs: Small Clear Specimens	Elijah OLAWUMI (Department of Wood Science and Engineering, Oregon State University, US), Lech MUSZYNSKI (Department of Wood Science and Engineering, Oregon State University, US), Michelle JAYAWICKRAMA (Department of Wood Science and Engineering, Oregon State University, US)
11:45~12:00	6	Moisture-activated set-recovery of thermo-hydro-mechanically densified hardwood dowels for high-tolerance timber connections	Lei HAN (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska, SI), Andreja KUTNAR (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska, SI)

Date & Time: June 9 (Tue), 13:30~15:15
Location: Room A
Moderator(s): Jongho KIM (Kangwon National University), Matthew SCHWARZKOPF (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
13:30~13:45	1	Physical and mechanical properties of hardboards (HB) made from acetic acid-modified fibers	Szymon JASKIEWICZ (Faculty of Wood Technology, Warsaw University of Life Sciences-SGGW, Warsaw, PL), Eduardo ROBLES (University of Pau and the Adour Region, E2S UPPA, CNRS, IPREM-UMR 5254, Mont de Marsan, FR), Grzegorz KOWALUK (Institute of Wood Sciences and Furniture, Warsaw University of Life Sciences - SGGW, Warsaw, PL)
13:45~14:00	2	Porosity and liquid water absorption capacity of spruce wood charred with different intensities	Jure ZIGON (University of Ljubljana, Biotechnical Faculty, SI), Anze ZAJC (University of Ljubljana, Biotechnical Faculty, SI), Ales STRAZE (University of Ljubljana, Biotechnical Faculty, SI)
14:00~14:15	3	Compatibility Assessment between Picture Frame and Compression-Based Methods for Determining the In-Plane Shear Modulus of CLT	Keonho KIM (National Institute of Forest Science, KR), Chul-Ki KIM (National Institute of Forest Science, KR), Chang-Deuk EOM (National Institute of Forest Science, KR)
14:15~14:30	4	How Variability of FTIR Spectra Influence Machine Learning Based Wood Species Discrimination	Risto NAHKSEPP (Institute of Forestry and Engineering, Estonian University of Life Sciences, EE), Kaido SIIMON (Institute of Forestry and Engineering, Estonian University of Life Sciences, EE), Ahto KANGUR (Institute of Forestry and Engineering, Estonian University of Life Sciences, EE), Oie Renata SIIMON (Institute of Computer Science, University of Tartu, EE)
14:30~14:45	5	Modification of sorption thermodynamics and hygromechanical coupling in naturally aged structural timber	Ales STRAZE (University of Ljubljana, Biotechnical Faculty, SI), Matjaz DREMELJ (University of Ljubljana, Biotechnical Faculty, SI), Jure ZIGON (University of Ljubljana, Biotechnical Faculty, SI), Anze ZAJC (University of Ljubljana, Biotechnical Faculty, SI)

Presentation Time	No.	Title	Authors
14:45~15:00	6	Influence of refining parameters on fiber granulometry, surface quality, and mechanical properties of embossed MDF door panels	Johanna GAITAN-ALVAREZ (Renewable Materials Research Centre (CRMR), Faculty of Forestry, Geography, and Geomatics, Universit Laval, CA), Rosilei GARCIA (Renewable Materials Research Centre (CRMR), Faculty of Forestry, Geography, and Geomatics, Universit Laval, CA), Alain CLOUTIER (Renewable Materials Research Centre (CRMR), Faculty of Forestry, Geography, and Geomatics, Universit Laval, CA), Veronic LANDRY (Renewable Materials Research Centre (CRMR), Faculty of Forestry, Geography, and Geomatics, Universit Laval, CA)
15:00~15:15	7	Evaluating the Technological Properties of Quercus laurina and Q. rugosa for Forest Use Diversification in Mexico	Jose Antonio SILVA GUZMAN (Universidad De Guadalajara, MX), Dulce Isamar HERNANDEZ RIVERA (Universidad De Guadalajara, MX), Alma Rosa SALCEDO CORONA (Universidad De Guadalajara, MX), Jose Antonio ANZALDO HERNANDEZ (Universidad De Guadalajara, MX), Berenice CLIFTON GARCIA (Universidad De Guadalajara, MX), Francisco Javier FUENTES TALAVERA (Universidad De Guadalajara, MX), Raul RODRIGUEZ ANDA (Universidad De Guadalajara, MX)

Date & Time: June 10 (Wed), 08:30~10:00
Location: Room B
Moderator(s): Keon-ho KIM (National Institute of Forest Science), Matthew SCHWARZKOPF (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
08:30~08:45	1	Interactive Effects of Temperature, Moisture Content, and Pressure on Birch Veneer Densification	Tolgay AKKURT (Tallinn University of Technology, EE), ANTI ROHUMAA (Tallinn University of Technology, EE), Jaan KERS (Tallinn University of Technology, EE)
08:45~09:00	2	Understanding the effect of thickness variation on adhesive bond formation conditions and bond integrity in cross-laminated timber	Samson Micheal IDOGHOR (Oregon State University, US), Ashley MCCANN (Oregon State University, US), Autumn BATTISTI (Oregon State University, US), Lech MUSZYNSKI (Oregon State University, US), Vahid NASIR (Oregon State University, US), John NAIRN (Oregon State University, US), Fatemeh REZAEI (Mississippi State University, US)
09:00~09:15	3	The effect of voids on mechanical performances of wood-based products	Wanzhao LI (Nanjing Forestry University, CN), Jiangtao SHI (Nanjing Forestry University, CN)
09:15~09:30	4	Physical and Mechanical Properties of Bamboo I-Joist Based on Web Diameter, Flange Thickness, and Adhesive Types	Naresworo NUGROHO (Faculty of Forestry and Environment, IPB University, ID), Wayan DARMAWAN (Faculty of Forestry and Environment, IPB University, ID), Dede HERMAWAN (Faculty of Forestry and Environment, IPB University, ID), Lastiur Eva PANGGABEAN (Faculty of Forestry and Environment, IPB University, ID), Anngun THEVIANNI (Faculty of Forestry and Environment, IPB University, ID), Khairunnisa Iskandar PUTRI (Faculty of Forestry and Environment, IPB University, ID)
09:30~09:45	5	Methods of Cross-linking of Hardwood Kraft Lignin as Bio-Based Wood Adhesives for Wood Bonding	Byung-Dae PARK (Kyungpook National University, KR), Ega Cyntia WATUMLAWAR (Kyungpook National University, KR), Saman GHAHRI (Kyungpook National University, KR), Eko Setio WOBOWO (Research Center for Biomass and Bioproducts, National Research and Innovation, ID)
09:45~10:00	6	Advancing Wood Identification in the Philippines: Utilizing the Xylorix Platform for Efficient AI Model Development and Deployment for Five Key Species	Rosalie MENDOZA (University of the Philippines Los Banos, PH), Vivian DARACAN (University of the Philippines Los Banos, PH), Arlene ROMANO (University of the Philippines Los Banos, PH), Ronniel MANALO (University of the Philippines Los Banos, PH), Xin Jie TANG (Agritix, MY), Yi Hong WONG (Agritix, MY), Yong Haur TAY (Agritix, MY)

Date & Time: June 10 (Wed), 10:30~12:00
Location: Room B
Moderator(s): Keon-ho KIM (National Institute of Forest Science), Matthew SCHWARZKOPF (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
10:30~10:45	1	Study on the Correlation between the Main Chemical Components of Calamus simplicifolius Cell Walls and Micro-Mechanics	Lili SHANG (International Center for Bamboo and Rattan, CN), long FENG (International Center for Bamboo and Rattan, CN), Jianfeng MA (International Center for Bamboo and Rattan, CN), Zehui JIANG (International Center for Bamboo and Rattan, CN)
10:45~11:00	2	Wood properties of naturally grown Larix sibirica in degraded forests at seven sites in Mongolia	Sender ALTANGEREL (Research and Training Institute of Forestry and Wood Industry, Mongolian University of Science and Technology, MN), Murzabyek SARKHAD (Research and Training Institute of Forestry and Wood Industry, Mongolian University of Science and Technology, MN)

Presentation Time	No.	Title	Authors
11:00~11:15	3	Acid Hydrolysis as a Recycling Pathway for Particleboard Waste: From Waste to Value	Gustavo E. RODRIGUEZ (Renewable Materials Research Centre (CRMR), Faculty of Forestry, Geography, and Geomatics, Universite Laval, CA), Rosilei GARCIA (Renewable Materials Research Centre (CRMR), Faculty of Forestry, Geography, and Geomatics, Universite Laval, CA), Alain CLOUTIER (Renewable Materials Research Centre (CRMR), Faculty of Forestry, Geography, and Geomatics, Universite Laval, CA)
11:15~11:30	4	Improving Structural Integrity and Chemical Stability of Salix tetrasperma Wood Through Thermal Modification	Sufiya SHABIR (Shere-Kashmir University of Agricultural Sciences and Technology of Kashmi, Jammu and Kashmir, Indiar, IN)
11:30~11:45	5	Structural Reconstruction of Ultrafine Bamboo Fibers for High-Performance Bio-Based Composites	Susu YANG (southwest forestry university, CN)
11:45~12:00	6	Orthotropic Compression Behaviour and Failure Mechanisms of reclaimed versus Fresh Scots Pine	Nametso Linda MOUMAKWA (Aalto University, FI), Mark John HUGHES (Aalto University, FI)

I-2. Fundamentals in Wood Chemistry and Biorefining

Date & Time: June 10 (Wed), 13:30~15:45
Location: Room B
Moderator(s): Soo-Kyeong JANG (National Institute of Forest Science), Matthew SCHWARZKOPF (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
13:30~13:45	1	Improving moisture resistance of bio-based protein adhesives with different crosslinkers	Anita TRAN (BOKU University, AT), Johannes HOFER (BOKU University, AT), Ritika MALIK (BOKU University, AT), Hendrikus WG VAN HERWIJNEN (Wood K plus-Competence Centre for Wood Composites & Wood Chemistry, Kompetenzzentrum Holz GmbH, AT), Johannes KONNERTH (BOKU University, AT)
13:45~14:00	2	Distribution of metabolites in Ginkgo biloba seeds	Qinyue GONG (Nagoya University, JP), Yuta ISOMURA (Nagoya University, JP), Nanako OMORI (Nagoya University, JP), Dan AOKI (Nagoya University, JP), Takamitsu UCHIDA (Aichi Center for Industry and Science Technology, JP), Bin LI (Nagoya University, JP), Tetsuya INAGAKI (Nagoya University, JP), Masato YOSHIDA (Nagoya University, JP), Kazuhiko FUKUSHIMA (Nagoya University, JP)
14:00~14:15	3	Activity-guided isolation and identification of antiviral compounds from tree bark extracts	Aitana ZOCO (University of Eastern Finland, FI), Miika KARJALAINEN (University of Jyvaskyla, FI), Stefan BOEHMDORFER (BOKU University, AT), Potthast ANTJE (BOKU University, AT), Janne JANIS (University of Eastern Finland, FI), Varpu MARJOMAKI (University of Jyvakyla, FI), Antti HAAPALA (University of Eastern Finland, FI)
14:15~14:30	4	Using HSQC NMR to elucidate the molecular-level effects of suberin-specific esterases on birch bark	Meera CHRISTOPHER (Division of Industrial Biotechnology, Department of Life Sciences, Chalmers University of Technology, SE), Ahilan MANISEKARAN (Forest products and Chemical Engineering Division, Department of Chemistry and Chemical Engineering, Chalmers University of Technology, SE), Giacomo RUZZA (Division of Industrial Biotechnology, Department of Life Sciences, Chalmers University of Technology, SE), Hedieh NOEPARAST (Division of Industrial Biotechnology, Department of Life Sciences, Chalmers University of Technology, SE), Li-Yang LIU (Forest products and Chemical Engineering Division, Department of Chemistry and Chemical Engineering, Chalmers University of Technology, SE), Lisbeth OLSSON (Division of Industrial Biotechnology, Department of Life Sciences, Chalmers University of Technology, SE)
14:30~14:45	5	Integrated Process Optimization and Molecular Characterization of Boreal Bark-Derived Tannins for Sustainable Particleboard Manufacturing	Seyed Saman VAKILI (Université Laval, CA), Vahideh AKBARI (Université Laval, CA), Papa NIOKHOR DIOUF (Serex, CA), Veronic LANDRY (Université Laval, CA)
14:45~15:00	6	Steam-Induced Cellular Expansion of Quercus variabilis Virgin Cork Granules: Toward Tunable Bio-based Porous Structures	Byeongho KIM (Kangwon National University, KR), Seungsu PARK (Kangwon National University, KR), Jeongsu BYUN (Kangwon National University, KR), Ji-Yeon SIM (Kangwon National University, KR), Se-Yeong PARK (Kangwon National University, KR)
15:00~15:15	7	By-product effluents from Eucalyptus sulphite pulping: valorisation of an underutilized source of bioactive compounds	Dmitry EVTYUGIN (CICECO - University of Aveiro, PT), Antonio PRATES (CAIMA-Industria de Celulose S.A, PT), Dmitry EVTUGUIN (CICECO - University of Aveiro, PT)
15:15~15:30	8	Bio-based Functional Self-healing Polymer Composites via Schiff Base Reaction of Lignin and Aldehyde-containing Polymers	GeunWoo HAN (Seoul National University, KR), Youngmin CHO (Seoul National University, KR), Junho SHIN (Seoul National University, KR), Jonghwan CHOI (Seoul National University, KR), In-Gyu CHO (Seoul National University, KR)

Presentation Time	No.	Title	Authors
15:30~15:45	9	From Bark Waste to High-Value Bio-Based Materials: Cascade Valorization of Tree Bark Post-Extraction Residues	Grzegorz KOWALUK (Warsaw University of Life Sciences - SGGW, PL), Anita WRONKA (Warsaw University of Life Sciences - SGGW, PL), Julia DASIEWICZ (Warsaw University of Life Sciences - SGGW, PL)

Date & Time: June 10 (Wed), 16:00~18:00
Location: Room B
Moderator(s): Soo-Kyeong JANG (National Institute of Forest Science), Matthew SCHWARZKOPF (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
16:00~16:15	1	Availability and Variability of Post-Extraction Tree Bark Residues as Emerging Raw Materials for Biorefinery Systems	Anita WRONKA (Warsaw University of Life Sciences, PL), Julia DASIEWICZ (Warsaw University of Life Sciences, PL), Grzegorz KOWALUK (Warsaw University of Life Sciences, PL)
16:15~16:30	2	Chemical Fingerprinting of Bark Post-Extraction Residues Using Integrated Chromatographic Analysis	Julia DASIEWICZ (Warsaw University of Life Sciences (SGGW), Poland, PL)
16:30~16:45	3	The effect of supercritical CO2 treatment on cell wall composition and cellulose accessibility in spruce wood	Callisto A BEUTHE (University of Ottawa, CA), M.Reza FORUZANMEHR (University of Ottawa, CA)
16:45~17:00	4	Lignin-carbohydrate Nanoparticles From Low-purity Lignin: A potential reinforcement for particleboards enhancement	Anass AIT BENHAMOU (Laval University, CA), Vahideh AKBARI (Laval University, CA), Veronic LANDRY (Laval University, CA)
17:00~17:15	5	Synthesis and Biological Screening of Hydrazones Using Isolated Cholic Acid	Talha MASHHOOD (Government College University Faisalabad, PK), Shehar BANO (Government College University Faisalabad, PK), Muhammad IBRAHIM (Government College University Faisalabad, PK)
17:15~17:30	6	Improvement of Eco-Friendly Bio-Adhesive from Potato Peel Starch: Performance Evaluation in Particleboard Manufacture	Sazzad HOSSEN (Forestry and Wood Technology, Khulna University, BD), Sagar BISHNU (Forestry and Wood Technology, Khulna University, BD), Md. ASHADUZZAMAN (Forestry and Wood Technology, Khulna University, BD)
17:30~17:45	7	Evaluation of Lignin Monomer Conversion and Biomass Dissolution Efficiencies in Pinus rigida P. taeda via Oxidative Catalytic Fractionation with a Base Catalyst	Soo-Kyeong JANG (National Institute of Forest Science, KR), Tae-In BAN (National Institute of Forest Science, KR)
17:45~18:00	8	Influence of biomass feedstock on biochar structure, properties, and performance	Islam HAFEZ (Oregon State University, US)

I-3. New Insights into Wood Biology

Date & Time: June 9 (Tue), 16:00~18:00
Location: Room A
Moderator(s): Jongsik KIM (Chonnam National University), Ilona PESZLEN (North Carolina State University, Forest Biomaterials)

Presentation Time	No.	Title	Authors
16:00~16:15	1	3D visualization of branched and anastomosed normal resin canals in Pinaceae	Dengcheng FENG (University of British Columbia, CA), Michael TURNER (The Australian National University, AU), Philip EVANS (University of British Columbia, CA)
16:15~16:30	2	Genomic Basis of Wood Decay Strategies in Basidiomycetes: Machine Learning Classification and Host Specialization	Natsuki HASEGAWA (Graduate School of Agricultural and Life Sciences, the University of Tokyo, JP), Masashi SUGIYAMA (Center for Advanced Intelligence Project, RIKEN, JP), Kiyohiko IGARASHI (Graduate School of Agricultural and Life Sciences, the University of Tokyo, JP)
16:30~16:45	3	Bacterial degradation of lignin-modified transgenic poplar	Ilona PESZLEN (North Carolina State University, US), Jack WANG (North Carolina State University, US), Vincent CHIANG (North Carolina State University, US), Robert KELLY (North Carolina State University, US)
16:45~17:00	4	Section SEM observations of organelle changes during cell death in ray parenchyma cells in Cryptomeria japonica	HyeunKyeung JEONG (Tokyo University of Agriculture and Technology, KR), Josui KAMIYAMA (Tokyo University of Agriculture and Technology, JP), Ryota MATSUBARA (Tokyo University of Agriculture and Technology, JP), Kenichi YAMANE (Tokyo University of Agriculture and Technology, JP), Izumi ARAKAWA (Akita Prefectural University, JP), Katsushi KURODA (Forestry and Forest Products Research Institute, JP), Tomohiro HATANO (Tokyo University of Agriculture and Technology, JP), Ryo FUNADA (Tokyo University of Agriculture and Technology, JP), Satoshi NAKABA (Tokyo University of Agriculture and Technology, JP)

Presentation Time	No.	Title	Authors
17:00~17:15	5	Anatomical and chemical analyses of artificially induced blackened xylem by wounding of branches in Diospyros kaki	Ryotaro SHIGA (Tokyo University of Agriculture and Technology, JP), Hiroki FURUKAWA (Tokyo University of Agriculture and Technology, JP), Nire GI (Tokyo University of Agriculture and Technology, JP), Kana IWAMI (Tokyo University of Agriculture and Technology, JP), Satoshi NOMA (Tokyo University of Agriculture and Technology, JP), Takuya BAN (Tokyo University of Agriculture and Technology, JP), Yasuyuki MATSUSHITA (Tokyo University of Agriculture and Technology, JP), Ryo FUNADA (Tokyo University of Agriculture and Technology, JP), Satoshi NAKABA (Tokyo University of Agriculture and Technology, JP)
17:15~17:30	6	Stem wood growth of stomata-sensitive conifers may profit more from the mobile carbon storage accumulated during the post-growing season	Fang WANG (Hebei Normal University, CN)
17:30~17:45	7	Discovering the anatomical and chemical composition of the corky bark of Eucalyptus suberea	Jorge GOMINHO (Instituto Superior de Agronomia, PT), Ana LOURENO (Instituto Superior de Agronomia, PT), Antonio VELEZ (Instituto Superior de Engenharia de Lisboa, PT)
17:45~18:00	8	Biological durability of compressed wood treated with citric acid and sorbitol	Halvar MEINHARD (Aalto university, FI), Shiying ZHANG (Aalto university, FI), Kristiina LILLQVIST (Aalto university, FI), Shennan WANG (Aalto university, FI), Lauri RAUTKARI (Aalto university, FI)

I-4. Traditional Wood Care and Maintenance: Drying, Preservation, Machining, Finishing, etc.

Date & Time: June 10 (Wed), 08:30~10:00
Location: Room A
Moderator(s): Jong Bum RA (Gyeongsang National University), Young-Seok CHOI (National Institute of Forest Science)

Presentation Time	No.	Title	Authors
08:30~08:45	1	Study on the Processing of Large Timber Components in Sabi-Period Wooden Architecture (3rd5th Century)	Heesoo SONG (Korea National University of Heritage, KR), HaeRee PARK (Korea National University of Heritage, KR), SooChul KIM (Korea National University of Heritage, KR)
08:45~09:00	2	Development of Pretreatment Techniques and Optimal Kiln-Drying Schedules to Reduce Drying Defects in Large-Cross-Section Round Timber from Red Pine	Bat-Uchral BATJARGAL (Department of Agriculture, Forestry and Bioresources, Seoul National University, KR), Minjee KANG (Department of Agriculture, Forestry and Bioresources, Seoul National University, KR), Seonghyun LEE (Department of Agriculture, Forestry and Bioresources, Seoul National University, KR), Chang-Jin LEE (Department of Wood Science and Technology, Jeonbuk National University, KR), Hwanmyeong YEO (Department of Agriculture, Forestry and Bioresources, Seoul National University, KR)
09:00~09:15	3	Comprehensive Fire Performance of Softwood-Based Engineered Wood Products Treated with a High-Concentration Boron-Phenolic Hybrid Fire-Retardant System	Halim PARK (Chungnam National University, KR), Suhwan YEO (Chungnam National University, KR), Duy Vuong NGUYEN (Chungnam National University, VN), Taek Yong JEONG (The Korean Woodism-city Project Research Center, KR), Seoggoo KANG (Chungnam National University, KR)
09:15~09:30	4	ACETYLATION OF EUROPEAN ASH (FRAXINUS EXCELSIOR) WOOD AS AN ALTERNATIVE TO THE TRADITIONAL THERMAL MODIFICATION METHOD	Stepan BERANEK (Mendel University, CZ), Jakub DOMENY (Mendel University, CZ), Jan BAAR (Mendel University, CZ)
09:30~09:45	5	Hygrothermal performance of timber rainscreen faade systems	Seong Taek KANG (Yonsei University, KR), Yujin KANG (Dankook University, KR), Ji Hun PARK (Yonsei Univeristy, KR), Sumin KIM (Yonsei University, KR)
09:45~10:00	6	Comparative Analysis of Traditional Wood Preservation and Maintenance Practices: A Case Study of Gwagwalada, Nigeria	Michael OKE (Michael Adedotun Oke Foundation/ Federal Capital Territory Agricultural Development Programe, NG)

II-1. Advanced Timber Engineering and Hybrid Structural Systems

Date & Time: June 10 (Wed), 10:30~12:00
Location: Room A
Moderator(s): Jung-Kwon OH (Seoul National University), Mohammad DERIKVAND (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
10:30~10:45	1	Assessment of heritage timber beams for dowel-laminated timber production: material recovery rate and structural performance	Mohammad DERIKVAND (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska, SI)
10:45~11:00	2	Innovations in wood product value chains for construction markets: a European overview	Uwe KIES (InnovaWood, BE), Vanesa BANO (InnovaWood, ES), Peter ROMIH (InnovaWood, InnoRenew CoE, SI), Oliver JANCKE (InnovaWood, FR), Andreja KUTNAR (InnoRenew CoE, UP IAM & UP FAMNIT, SI), Mike BURNARD (InnoRenew CoE, UP IAM & UP FAMNIT, SI), Stergios ADAMOPOULOS (Swedish University of Agricultural Sciences, SE)
11:00~11:15	3	Expanding the Structural Role of Wood in Hybrid Systems: Configuration-Oriented Synthesis from the Finnish Carbon-Regulated Context	Huseyin Emre ILGIN (Tampere University, FI), Markku KARJALAINEN (Tampere University, FI), Jami JARVINEN (Tampere University, FI)
11:15~11:30	4	Feasibility on a novel GLT-Steel composite beam system with on-site self-installation for 3D modular building units	Jung-Kwon OH (Seoul National University, KR), Hae-Seon HWANG (Seoul National University, KR), Min-Jeong KIM (Seoul National University, KR), Kyung-Sun AHN (Seoul National University, KR), Gwang-Ryul LEE (Seoul National University, KR), Hae-Gyu LEE (Seoul National University, KR), Chul-Ki KIM (National Institute of Forest Science, KR)
11:30~11:45	5	Lateral Load Resistance and Connection Behavior of a Prefabrication Timber Wall System	Hyung Woo LEE (Wood Engineering Div., National Institute of Forest Science, KR), Chul-Ki KIM (Wood Engineering Div., National Institute of Forest Science, KR), Nayoung YOON (Wood Engineering Div., National Institute of Forest Science, KR)
11:45~12:00	6	Novel Test-Method to evaluate Thermal Bond Line Stability	Oliver VAY (Wood K plus - Competence Centre for Wood Composites & Wood Chemistry, Kompetenzzentrum Holz GmbH, AT), Hermann KIRCHMAYR (Stora Enso Wood Products GmbH, AT), Markus HIRMKE (Stora Enso Wood Products GmbH, AT), Robert STINGL (BOKU University, Institute of Wood Technology and Renewable Materials, Department of Natural Sciences and Sustainable Resources, Austria, AT), Florian LAUBERGER (Wood K plus - Competence Centre for Wood Composites & Wood Chemistry, Kompetenzzentrum Holz GmbH, AT), Christian HANSMANN (Wood K plus - Competence Centre for Wood Composites & Wood Chemistry, Kompetenzzentrum Holz GmbH, AT)

Date & Time: June 10 (Wed), 13:30~15:30
Location: Room A
Moderator(s): Jung-Kwon OH (Seoul National University), Mohammad DERIKVAND (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
13:30~13:45	1	Performance of PVA-Modified MUF Adhesives for Cold-Press Manufacturing of Structural Engineered Wood	Min LEE (National Insititute of Forest Science, KR), Sang-Min LEE (National Insititute of Forest Science, KR), Yonggun PARK (National Insititute of Forest Science, KR), Soo-Hyeok LEE (National Insititute of Forest Science, KR)
13:45~14:00	2	Experimental Investigation of Monotonic Behavior of Moment Resisting Connections for GLT	Min-Soon PARK (Chungbuk National University, KR), Min-Ji KIM (Chungbuk National University, KR), Kug-Bo SHIM (Chungbuk National University, KR)
14:00~14:15	3	INFLUENCE OF PLYWOOD CORE ORIENTATION AND ADHESIVE TYPE ON THE STRUCTURAL PERFORMANCE OF CLT PANELS	Duy Vuong NGUYEN (Chungnam National University, KR), Taek-Yong JEONG (The Korean Woodism-city Project Research Center, KR), Seon-Mee Yoon (The Korean Woodism-city Project Research Center, KR), Ha-Lim PARK (Chungnam National University, KR), Seog-goo KANG (Chungnam National University, KR)
14:15~14:30	4	Mill Scale Manufacturing and Cost Modeling of Structural Grade Hardwood Lumber from Yellow Poplar Cants for Mass Timber Applications	Brian BOND (Virginia Tech, US), Sailesh ADHIKARI (National Hardwood Lumber Association, US)
14:30~14:45	5	Innovative Rotary Peeling of Thick Timber Panels from Underutilized European Aspen: Process Parameters and Surface Integrity	Heikko KALLAKAS (Tallinn University of Technology, EE), Aleksandr SEREBRENNIKOV (Tallinn University of Technology, EE), Catherine KILUMETS (Tallinn University of Technology, EE), Ignatius Kristia ADIKURNIA (Tallinn University of Technology, EE)

Presentation Time	No.	Title	Authors
14:45~15:00	6	Evaluation of Expected Structural Performance of Larch-Pine Hybrid Glulam for Efficient Utilization of Domestic Timber Resources	Taek Yong JEONG (The Korean Woodism-city Project Research Center, KR), Do Yoon HWANG (Korea Woodism-city Project Research Center, KR), Seog-Goo KANG (Chungnam National University, KR)
15:00~15:15	7	Analytical and numerical investigation of the stiffness of single wooden dowel timber-to-timber connections	Inayat Ullah KHAN (Deakin University, AU), Mahbube SUBHANI (Chalmers University of Technology, SE), Kazem GHABRAIE (Deakin University, AU), Mahmud ASHRAF (Deakin University, AU)
15:15~15:30	8	The Bonding Performance of CCA treated Radiata Pine Mass Plywood Panel	Lili JIA (University of Canterbury, School of Forestry, NZ), Hyungsuk LIM (University of Canterbury,School of Forestry, NZ), Xinyu WU (Nanjing Forestry University, CN)

II-2. Designing for Performance and Resilience in Residential Timber Structures

Date & Time: June 9 (Tue), 08:30~10:00
Location: Room B
Moderator(s): Sang-Joon LEE (National Institute of Forest Science), Mohammad DERIKVAND (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
08:30~08:45	1	Development of Weather-Resistant Structural Plywood for Temporary Waterproofing During Construction of Mass Timber Buildings: Specification Selection Based on Weathering Tests	Yoshida KYOHEI (Guest researcher, Center for Sustainable Building Engineering, Shibaura Institute of Technology, JP), Yamashiro SATORU (Professor, Department of Architecture, Shibaura Institute of Technology, JP), Kuramoto YSUHIRO (NISSHIN CO., LTD., JP), Aratani AIKO (NISSHIN CO., LTD., JP)
08:45~09:00	2	Current Status of R&D on Impact Sound Insulation for Vitalizing Multi-Residential Timber Buildings in Korea	Sang-Joon LEE (National Institute of Forest Science, KR), Hyung Woo LEE (National Institute of Forest Science, KR), Beom-Yeol YUN (National Institute of Forest Science, KR), In-Hwan LEE (National Institute of Forest Science, KR), Chul-Ki KIM (National Institute of Forest Science, KR), Sung-Joon PANG (Chonnam National University, KR), Yeon-Su HA (Korea Institute of Civil Engineering and Building Technology, KR), Hyo-Jin LEE (Fire Insurers Laboratories of Korea, KR)
09:00~09:15	3	Lateral Resistance Properties of SIP wall Sheathed with Structural PB	Chul-Ki KIM (Wood Engineering Div., National Institute of Forest Science, KR), Hyung Woo LEE (Wood Engineering Div., National Institute of Forest Science, KR), Nayoung YOON (Wood Engineering Div., National Institute of Forest Science, KR)
09:15~09:30	4	Derivation of a New Structural Element for Revising the Fire-Resistant Structural Standard for Light-Frame Wood Structures	In-Hwan LEE (National Institute of Forest Science, KR), Sang-Joon LEE (National Institute of Forest Science, KR), Chul-Ki KIM (National Institute of Forest Science, KR), Beom Yeol YUN (National Institute of Forest Science, KR), Hyung Woo LEE (National Institute of Forest Science, KR), Tae-Ik HWANG (National Institute of Forest Science, KR)
09:30~09:45	5	Managing Moisture in Mass Timber Elements	Jeffrey MORRELL (Adelaide University, AU), Ian MORRELL (Tennessee Tech, US), Arijit SINHA (Oregon State University, US), Diego RAMIREZ (Oregon State University, US)
09:45~10:00	6	Evaluating Flexible Bondlines and Thermal Enhancement in Wood Composites	Matthew SCHWARZKOPF (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska, SI), Rok PRISLAN (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska, SI), Jaka Gasper PECNIK (Slovenian National Building and Civil Engineering Institute, SI), Argyrios ANAGNOSTOPOULOS (Institute of Chemistry, University of Silesia in Katowice, PL)

Date & Time: June 9 (Tue), 10:30~11:15
Location: Room B
Moderator(s): Kug-Bo SHIM (Chungbuk National University), Mohammad DERIKVAND (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
10:30~10:45	1	Design of an Energy Self-Sufficient Disaster Shelter Using Fire-Damaged Timber	Jin-U JEON (Chungnam National University, KR), Jeonghun LEE (Chungnam National University, KR)
10:45~11:00	2	Energy retrofit for aging building using CLT panels with thermal bridges	Ji Hun PARK (Yonsei University, KR), Seong Taek KANG (Yonsei University, KR), Jihee NAM (Yonsei University, KR), Sumin KIM (Yonsei University, KR)
11:00~11:15	3	Optimization of PCM-Integrated Timber Structures for Cold Climate Applications	Hyun Bae KIM (Chungnam National University, KR), Minji KWON (Chungnam National University, KR), Takuyuki YOSHIOKA (The University of Tokyo, JP)

III-1. Innovations and Opportunities in Bio-based Nano Composites and Multi-Functional Hybrid Materials

Date & Time: June 9 (Tue), 13:30~15:30
Location: Room B
Moderator(s): Hoyong KIM (Korea Research Institute of Chemical Technology), Milan ŠERNEK (University of Ljubljana, Biotechnical Faculty, Department of Wood Science and Technology)

Presentation Time	No.	Title	Authors
13:30~13:45	1	Toward a Renewable Supply of Graphite: Catalytic Biographite Production and Techno-Economic Evaluation for Energy Storage Applications	Sunkyu PARK (North Carolina State University, US)
13:45~14:00	2	Cellulose Acetate Sulfate Hydrogels as 3D Printing Bio-Inks	Seong-Min CHO (North Carolina State University, US), Seonghyun PARK (North Carolina State University, US), Tavila SHARMIN (North Carolina State University, US), Rohan SHIRWAIKER (North Carolina State University, US), Sunkyu PARK (North Carolina State University, US)
14:00~14:15	3	Processing and Characterization of Cellulose Reinforced Polyamide Composites	Brooke MCKENZIE (North Carolina State University, US), Muhammad Khusairy Bin BAKRI (Washington State University, US), Hui LI (North Carolina State University, US)
14:15~14:30	4	From Biomass Valorization to Circular Remediation: Fully Biodegradable Hydrogels for Nanoplastic Capture	Seungoh JUNG (Seoul National University, KR), Sangwoo PARK (Seoul National University, KR), Junsik BANG (Seoul National University, KR), Jungkyu KIM (Seoul National University, KR), Seon-Gyeong KIM (Seoul National University, KR), Dawoon SEO (Seoul National University, KR), Chaeeun KIM (Seoul National University, KR), Dongho SHIN (Seoul National University, KR), Suhyun OK (Seoul National University, KR), Chaewoo JEONG (Seoul National University, KR), Hyo Won KWAK (Seoul National University, KR)
14:30~14:45	5	Towards Sustainable and Recyclable Lignin Fibers: Melt-Spun Lignin Esters with Iron Oxide Nanoparticles	Unnimaya THALAKKALE VEETTIL (Stockholm University, SE), Adrian MORENO (University Rovira I Virgili, Tarragona, ES), Alberto J. HUERTAS-ALONSO (Stockholm University, SE), Mohammad MORSALI (Stockholm University, SE), Ievgen V. PYLYPCHUK (Stockholm University, SE), Li-Yang LIU (Chalmers University of Technology, SE), Mika. H SIPPONEN (Stockholm University, SE)
14:45~15:00	6	Spray-coating self-assembled Cellulose Nanocrystals on wood: how to create structural colorful and bio-based wood coatings	Celia LOINTIER (BOKU University, AT), Stefan VEIGEL (BOKU University, AT), Johannes KONNERTH (BOKU University, AT), Claudia GUSENBAUER (BOKU University, AT)
15:00~15:15	7	Bonding Performance of Wood with Renewable Bio-Based Shellac Adhesive	Milan SERNEK (University of Ljubljana, Biotechnical Faculty, SI), Maks BRUS (University of Ljubljana, Biotechnical Faculty, SI)
15:15~15:30	8	Smooth, self-standing cellulose nanopaper composite and its applications	Yuyo YEH (School of Forestry and Resource Conservation, National Taiwan University, TW), Pei-Yu WANG (Department of Chemistry, National Taiwan University, TW), Wei-Ssu LIAO (Department of Chemistry, National Taiwan University, TW), Feng-Cheng CHANG (School of Forestry and Resource conservation, National Taiwan University, TW)

Date & Time: June 9 (Tue), 16:00~18:00
Location: Room B
Moderator(s): Hoyong KIM (Korea Research Institute of Chemical Technology), Milan ŠERNEK (University of Ljubljana, Biotechnical Faculty, Department of Wood Science and Technology)

Presentation Time	No.	Title	Authors
16:00~16:15	1	Metal-Ion-Induced Microfibril Engineering of Cellulose and Its Applications	Zhang XUEFENG (University of Maine, US)
16:15~16:30	2	Silica-supported carboxymethylated kraft lignin for the sequestration of transition metals in wastewater	Micaela SANTOS (University of Aveiro, PT), Carlota NELSON (University of Aveiro, PT), Sofia REBOLA (CELBI, S. A., PT), Alisa RUDNITSKAYA (University of Aveiro, PT), Dmitry EVTUGUIN (University of Aveiro, PT)
16:30~16:45	3	Accelerated Thermal Stabilization for Lignin-based Carbon Nanofibers via In-situ UVC Irradiation during Electrospinning	Jungkyu KIM (Seoul National University, KR), Sangwoo PARK (Seoul National University, KR), Junsik BANG (Seoul National University, KR), Seungoh JUNG (Seoul National University, KR), Seon-Gyeong KIM (Seoul National University, KR), Chaeeun KIM (Seoul National University, KR), Dawoon SEO (Seoul National University, KR), Dongho SHIN (Seoul National University, KR), Su Hyun OK (Seoul National University, KR), Chaewoo JEONG (Seoul National University, KR), In-Gyu CHOI (Seoul National University, KR), Hyo Won KWAK (Seoul National University, KR)
16:45~17:00	4	Bio-Based Crosslinking of PVA/Chitosan Composite Films Using Water Soluble Dialdehyde Cellulose for Moisture-Resistant Active Packaging	Ju-Won JIN (Kangwon National University, KR), Seung-Woo CHO (Kangwon National University, KR), Dong-Suk JEON (Kangwon National University, KR), Song-Yi HAN (Kangwon National University, KR), Rajkumar BANDI (Kangwon National University, IN), Ramakrishna DADIGALA (Kangwon National University, IN), Gu-Joong KWON (Kangwon National University, KR), Seung-Hwan LEE (Kangwon National University, KR)
17:00~17:15	5	Nanocellulose Reinforced PRF Resin in Extrudable Wood Composites for Potential Additive Manufacturing Applications	Armando MCDONALD (University of Idaho, US), Japneet KUKAL (University of Idaho, US), Maria Soledad PERESIN (Clemson University, US)
17:15~17:30	6	Enabling Highly Reversible Zinc Metal Batteries by Wood-based Cellulose Nanomaterials	Chaozheng LIU (Nanjing Forestry University, CN), Changtong MEI (Nanjing Forestry University, CN)
17:30~17:45	7	Green Construction of High-Performance Biochar/Wood-Based Functional Composites Driven by Hydroplasticization	Suiyi LI (Nanjing Forestry University, CN), Haoran YE (Nanjing Forestry University, CN), Changlei XIA (Nanjing Forestry University, CN)
17:45~18:00	8	Investigation of Fungal Resistance of Wood-Fiber Insulation Boards	Volha MIALESHKA (University of Sopron, HU), Zoltan PASZTORY (University of Sopron, HU), Inha HENIUSH (Belarusian State Technological University, BY), Ihar BAZHELKA (Belarusian State Technological University, BY)

Date & Time: June 10 (Wed), 13:30~15:30
Location: Room C
Moderator(s): Jaegyoung GWON (Jeonbuk National University), Milan ŠERNEK (University of Ljubljana, Biotechnical Faculty, Department of Wood Science and Technology)

Presentation Time	No.	Title	Authors
13:30~13:45	1	Enhancing Biochar for Supercapacitors through Fungal Pretreatment of Woody Biomass	Gloria OPORTO (West Virginia University, US), Balazs BENCSIK (West Virginia University, US)
13:45~14:00	2	Turning Banana Waste into Functional Biofoams: A Simple Liquefaction Approach toward Sustainable Materials	Yi-Chun CHEN (Department of Forestry, National Chung Hsing University, TW), Hao-Yue DONG (Department of Forestry, National Chung Hsing University, TW)
14:00~14:15	3	Nanocellulose-based functional emulsions and foams	Shuaib MUBARAK (Mississippi State University, US), Dikshya POKHREL (Mississippi State University, US), Bikal GHIMIRE (Mississippi State University, US), Yunsang KIM (Mississippi State University, US)
14:15~14:30	4	Multi-Functional Chemically Modified Cellulose Nanocomposites for Advanced Energy Storage	Hyeyun KIM (Korea Institute of Science and Technology, KR), Seonmyeong YU (Korea Institute of Science and Technology, KR), Dahae OH (Korea Institute of Science and Technology, KR), Geon-young PARK (Korea Institute of Science and Technology, KR), Kahyun HUR (Korea Institute of Science and Technology, KR)
14:30~14:45	5	The Potential of Rasau Fibers as a Sustainable Feedstock for Molded Pulp Packaging	Lukmanul Hakim ZAINI (IPB University, ID), Verastra Pradiva Maurensia GUNAWAN (IPB University, ID), Noviyanti NUGRAHENI (Sebangau National Park, ID), Eko PRASETYO (Borneo Orangutan Survival Foundation, ID), Wolfgang GINDL-ALTMUTTER (BOKU University, ID)
14:45~15:00	6	Development strategies of cellulose based opacifiers, as sustainable alternative whitening agent to Titanium di oxide (TiO2).	Muhammad MUJTABA (VTT Technical Research Center of Finland, FI)
15:00~15:15	7	Waste to Worth: A Circular Solution through Lignin Engineering	Jinghao LI (Western Michigan University, US)
15:15~15:30	8	Analysis of Upcycled Lint Fiber for Composite Applications	Lee Miller SMITH (Northeastern State University, US), Xuan WANG (University of North Texas, US)

Date & Time: June 10 (Wed), 16:00~18:00
Location: Room C
Moderator(s): Jaegyoung GWON (Jeonbuk National University), Milan ŠERNEK (University of Ljubljana, Biotechnical Faculty, Department of Wood Science and Technology)

Presentation Time	No.	Title	Authors
16:00~16:15	1	Computationally Accelerated Design, Discovery, and Development of Chemically Recyclable Polyolefin-like Multiblock Polymers	Seonah KIM (Colorado State University, US)
16:15~16:30	2	Enhancing the Mechanical Properties of Flax Fiber- Reinforced Epoxy Composites through Cellulose Nanofiber Incorporation	Ruiwen YU (Beihua University, CN), Mingli LIU (Beihua University, CN), Jung-IL SONG (Changwon National University, KR)
16:30~16:45	3	Microstructural and thermochemical evolution of marine algae-nanocellulose hybrid formulation for fire-safe wood insulation composites	Stephen AMIANDAMHEN (Norwegian Institute of Bioeconomy Research, NO), Ralf RAUTENBERGER (Norwegian Institute of Bioeconomy Research, NO)
16:45~17:00	4	Lightweight Cellulose-Based Composite Aerogels for Integrated Flame Retardancy and Thermal Insulation	Fengwu ZHANG (Southwest Forestry University, CN), Yushan YANG (Southwest Forestry University, CN), Jian QIU (Southwest Forestry University, CN)
17:00~17:15	5	Evaluation of Hardwood Bark-Derived Tannins for Bio-Adhesive Formulation and Sustainable Wood-Based Biocomposites Production	Md. ASHADUZZAMAN (Khulna University, BD), Sandhi Mahamud SHAKIL (Khulna University, BD), Sagar BISHNU (Khulna University, BD), Md. Rakibur Rahman SHOVON (Khulna University, BD), Shahadat HOSSAIN (Khulna University, BD), Sazzad HOSSEN (Khulna University, BD), Nowreen Akther REME (Khulna University, BD)
17:15~17:30	6	Determination of Physical, Mechanical and Fire Retardancy Properties of Innovative Particleboard Made from Corn Stalk (Zea mays L.) Particles	Lilik ASTARI (National Research and Innovation Agency of Republic of Indonesia (BRIN), ID)
17:30~17:45	7	Developing Lightweight Silanized Cellulose Ultramaterials as the Strongest Engineered Aerogel	Kangkang ZHANG (Southwest Forestry University, CN), Yushan YANG (Southwest Forestry University, CN), Jian QIU (Southwest Forestry University, CN)

III-2. Digitalization and Smart Processing Technology

Date & Time: June 9 (Tue), 17:00~18:00
Location: Room C
Moderator(s): Min LEE (National Institute of Forest Science), Frederico FRANÇA (Mississippi State University, Department of Sustainable Bioproducts)

Presentation Time	No.	Title	Authors
17:00~17:15	1	Digital modelling of the internal structure of composites made from wood-based by-products - optimization of the manufacturing process	Mikolaj KUC (The Faculty of Wood Technology of the Warsaw University of Life Sciences, Warsaw, PL), Grzegorz KOWALUK (Institute of Wood Sciences and Furniture, Warsaw University of Life Sciences - SGGW, Warsaw, PL)
17:15~17:30	2	Sophisticated Approach of NIR Spectroscopy to Forest Products	Satoru TSUCHIKAWA (Nagoya University, JP), Te MA (Nagoya University, JP), Tetsuya INAGAKI (Nagoya University, JP)
17:30~17:45	3	Toward Digital Predictive Maintenance of Wood Coatings: Mid-Infrared Spectroscopy Coupled with Machine Learning	Teramoto YOSHIKUNI (Graduate School of Agr, Kyoto Univ, JP)
17:45~18:00	4	Hyperspectral imaging predicts the fire classification of treated wood	Muhammad AWAIS (Norwegian University of Life Sciences, Faculty of Science and Technology, NO), Michael ALTGEN (Norwegian Institute of Bioeconomy Research, Department of Wood Technology, NO), Kristian HOVDE LILAND (Norwegian University of Life Sciences, Faculty of Science and Technology, NO), Isak VARTDAL-GJERDE (Norwegian University of Life Sciences, Faculty of Science and Technology, NO), Lone ROSS (Norwegian Institute of Bioeconomy Research, Department of Wood Technology, NO), Ingunn BURUD (Norwegian University of Life Sciences, Faculty of Science and Technology, NO)

IV-1. Circular Economy, Climate Mitigation, and Socio-Economic Impacts

Date & Time: June 9 (Tue), 08:30~10:00
Location: Room C
Moderator(s): Min-Ji KIM (National Institute of Forest Science), Michael BURNARD (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
08:30~08:45	1	Global Land and Carbon Consequences of Mass Timber Products	Kai LAN (North Carolina State University, US), Alice FAVERO (RTI International, US), Yuan YAO (Center for Industrial Ecology, Yale University, US), Robert MENDELSOHN (Yale University, US), Hannah Szu-Han WANG (Yale University, US)
08:45~09:00	2	Second Life Structures: From CLT Waste to Circular Furniture	Rico RUFFINO (NC State University, US)
09:00~09:15	3	Has Anything Changed? An Overview of Perceptions, Use, and Understanding of Cross-laminated Timber in the U.S. South: 2018 & 2025 from the Perspective of Architects, Non-Residential Builders, and Engineers	Richard VLOSKY (Louisiana State University Agricultural Center/Louisiana Forest Products Development Center, US)
09:15~09:30	4	Use of agricultural residues in the production of lignocellulosic composites with a reduced carbon footprint	Julia KOZERSKA (Faculty of Wood Technology, Warsaw University of Life Sciences - SGGW, PL), Nidal DEL VALLE RAYDAN (University of Pau and the Adour Region, FR), Grzegorz KOWALUK (Institute of Wood Sciences and Furniture, Warsaw University of Life Sciences - SGGW, PL)
09:30~09:45	5	End-of-Life Management of CCA-Treated Vineyard Posts in Australia: Circular Economy Opportunities, Constraints and Policy Pathways	Martin STRANDGARD (University of the Sunshine Coast, AU), Penelope MITCHELL (University of the Sunshine Coast, AU), Tripti SINGH (University of the Sunshine Coast, AU)
09:45~10:00	6	Integrating Design for Disassembly and Adaptability (DfD/A) in timber buildings A qualitative study on the design process	Sol VILLANUSTRE COPPOLA (Aalto University, FI), Mark HUGHES (Aalto University, FI), Anne TOPPINEN (University of Helsinki, FI)

Date & Time: June 9 (Tue), 10:30~12:00
Location: Room C
Moderator(s): Min-Ji KIM (National Institute of Forest Science), Michael BURNARD (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
10:30~10:45	1	Hydrothermal recycling of copper from wooden utility poles and railway sleepers	Aitor BARBERO-LOPEZ (Department of Chemistry and Sustainable Technology, University of Eastern Finland, FI), Jaka LEVANIC (Department of Wood Science and Technology, Biotechnical Faculty, University of Ljubljana, SI), Aitana ZOCO (Department of Chemistry and Sustainable Technology, University of Eastern Finland, FI), Eemeli ERONEN (Department of Chemistry and Sustainable Technology, University of Eastern Finland, FI), Janis JANNE (Department of Chemistry and Sustainable Technology, University of Eastern Finland, FI), Miha HUMAR (Department of Wood Science and Technology, Biotechnical Faculty, University of Ljubljana, SI), Antti HAAPALA (Department of Chemistry and Sustainable Technology, University of Eastern Finland, FI)
10:45~11:00	2	Towards Sustainable upcycling of particleboards and MDF - development directions and technological barriers	Aleksandra KOWALCZUK (Warsaw University of Life Sciences - SGGW, PL)
11:00~11:15	3	Mycelium Composites as Partial Substitutes for Timber in CLT to Reduce Pressure on Timber Resources	Shaghayegh ELAHI (Faculty of Built Environment, Tampere University, FI), Kimiya TAJIK (Department of Bioproducts and Biosystems, Aalto University, FI), Harvey SHAW (Department of Bioproducts and Biosystems, Aalto University, FI), Matti ISAKOV (Faculty of Engineering and Natural Sciences, Tampere University, FI), Sami PAJUNEN (Faculty of Built Environment, Tampere University, FI), Lauri RAUTKARI (Department of Bioproducts and Biosystems, Aalto University, FI)
11:15~11:30	4	Development of a Catalogue of Innovative Bio-Based and Sustainable Wood Composites for Design Applications	Natalia PADEREWSKA (The Faculty of Wood Technology of the Warsaw University of Life Sciences, PL)
11:30~11:45	5	Development of an Optimization Model for Green Supply Chain Management of Domestic Wood to Maximize Greenhouse Gas Reduction Effects	Hee HAN (Seoul National University, KR)
11:45~12:00	6	Analysis of Domestic Unused Forest Biomass Supply Trends and Sustainable Potential in South Korea	Jaejung LEE (Forest Industrial Materials Division, National Institute of Forest Science, KR)

Date & Time: June 10 (Wed), 16:00~18:00
Location: Room A
Moderator(s): Hee HAN (Seoul National University), Michael BURNARD (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
16:00~16:15	1	Symbiotic Waste Valorisation: A Case Study of the Estonian Wood and Furniture Industry	Jaan KERS (Tallinn University of Technology, EE), Jaana MERISAAR (Tallinn University of Technology, EE), Margit KULL (Tallinn University of Technology, EE), Tarmo TUISK (Tallinn University of Technology, EE), Jelena HARTENKO (Tallinn University of Technology, EE), Merle KUTTIM (Tallinn University of Technology, EE), Wolfgang D. GERSTLBERGER (Tallinn University of Technology, EE), Heikko KALLAKAS (Tallinn University of Technology, EE)
16:15~16:30	2	Why Does Locally Harvested Timber Leak Out of Small-Scale Wood-Producing Regions? Structural Bottlenecks in Local Wood Circulation in Yasugi City, Japan	Shohei KAWANAKA (National Institute of Technology(KOSEN), Yonago Collage, JP)
16:30~16:45	3	Influence of timber application to building envelopes on urban microclimate under seasonal conditions	Jihee NAM (Yonsei University, KR), Jinyoung PARK (Yonsei University, KR), Seong Jin CHANG (Gyeongsang National University, KR), Sumin KIM (Yonsei University, KR)
16:45~17:00	4	Material Matters: Wooden Corporate Buildings as Signals of Sustainability and Lower Perceived Greenwashing	Erlend NYBAKK (Kristiania University of Applied Sciences, NO), Jakob UTEGRD (Kristiania University of Applied Sciences, NO), Eric HANSEN (Oregon State University, US)
17:00~17:15	5	Woody Biochar from Forestry Residues for enhancing the resilisense of agroecosystems	Ling LI (The University of Maine, US), Swikar KARKI (The University of Maine, US), Lino REYES (The University of Maine, US), Jianheng ZHAO (The University of Maine, US), Adam DAIGNEAULT (The University of Maine, US), Libin LOUIS (The University of Maine at Fort Kent, US)
17:15~17:30	6	Circular Economy in Structural Timber	Daniel F. LLANA (Timber Products Laboratory, ICIFOR-INIA, CSIC, ES), Guillermo INIGUEZ-GONZALEZ (School of Forestry Engineering and Natural Resources. Timber Construction Research Group - Universidad Politecnica de Madrid (GICM - UPM), ES), Monica RUY (Structural Timber Engineering Platform, PEMADE, USC, ES), Pablo DE CASTRO (Advanced Forest Research Doctorate Program, School of Forestry Engineering and Natural Resources, Universidad Politecnica de Madrid, ES), Katarzyna OSTAPSKA (SINTEF Community, Trondheim, NO)
17:30~17:45	7	Forest-to-Forest	Paul MAYENCOURT (University of California Berkeley, US), Liz GALVEZ (University of California Berkeley, US)
17:45~18:00	8	Global Supply Chain Shocks and Wood Import Resilience: A VECM and Gravity Model Approach for Korea	Raeyeong KIM (Seoul National University, KR), Yohan LEE (Seoul National University, KR)

IV-2. Ecosystem Services and Biodiversity in Wood Value Chains

Date & Time: June 9 (Tue), 11:15~11:45
Location: Room B
Moderator(s): Kug-Bo SHIM (Chungbuk National University), Erlend NYBAKK (Kristiania University of Applied Sciences)

Presentation Time	No.	Title	Authors
11:15~11:30	1	Fibre Dimensions and Morphological Properties of Pineapple Crowns and Corn Sheaths: Renewable Resources in Paper Production	Mojibayo IKUSEDUN (Federal Institute of Industrial Research Oshodi, NG), Omolara Omowumi FATUNMIBI (Federal Institute of Industrial Research Oshodi, NG), Gregory ODIMGBE (Nigerian Army Ordinance Corps, NG)
11:30~11:45	2	Sustainable development from ecosystem services to legality and regulation in forests and forest products	Annika HYYTI (University of Helsinki, FI)

V-1. Cultural Dimensions and Societal Perceptions of Wood Use

Date & Time: June 9 (Tue), 13:30~15:30
Location: Room C
Moderator(s): Suyeon LEE (National Institute of Forest Science), Richard VLOSKY (Louisiana State University, School of Renewable Natural Resources)

Presentation Time	No.	Title	Authors
13:30~13:45	1	From Bus Shelter to Floating Grove: Bringing the First CLT Building to NC State	Frederik LALEICKE (NC State University, US), Rico RUFFINO (NC State University, US)

Presentation Time	No.	Title	Authors
13:45~14:00	2	Wood Culture in the fabrication of handicrafts for tourism in Costa Rica	Moya ROGER (Instituto Tecnologico de Costa Rica, CR), Carolina TENORIO (Instituto Tecnologico de Costa Rica, CR), Marta SÁENZ-MUÑOZ (Instituto Tecnologico de Costa Rica, CR)
14:00~14:15	3	Identifying Bottlenecks to Mass Timber Adoption in Rural Japan: A Comparative National Questionnaire Survey	Kanata YANO (Department of Architecture, National Institute of Technology, Yonago College, JP), Shohei KAWANAKA (Assistant Professor, Department of Architecture, National Institute of Technology, Yonago College, JP)
14:15~14:30	4	Development of a Play-Based Wood Education Program Integrating Environmental Values for Early Childhood	Jiyoon YANG (National Insitute of Forest Science, KR), Bo Hyun KIM (Anyang University, KR), Suyeon LEE (National Institute of Forest Science, KR), Joo-Saeng Park (National Institute of Forest Science, KR)
14:30~14:45	5	A study on demand forecasting analysis through a survey of the operational status of wood culture experience centers	Suyeon Lee (National Institute of Forest Science, KR), Jiyoon YANG (National Institute of Forest Science, KR)
14:45~15:00	6	Interactions in sensory experiences of wood	Michael BURNARD (InnoRenew CoE, UP IAM and UP FAMNIT, University of Primorska, SI), Spela VRTOVEC (InnoRenew CoE, UP IAM and UP FAMNIT, University of Primorska, SI), Rok PRISLAN (InnoRenew CoE, UP IAM and UP FAMNIT, University of Primorska, SI), Andreja KUTNAR (InnoRenew CoE, UP IAM and UP FAMNIT, University of Primorska, SI)
15:00~15:15	7	Method and Guidelines to quantify Total Carbon Impact of Mass Timber use in buildings	Hongmei GU (USDA Forest Service, Forest Products Laboratory, US)

V-2. New Approaches to Wood Sector Education and Workforce Development

Date & Time: June 9 (Tue), 16:00~17:00
Location: Room C
Moderator(s): Jiyoon YANG (National Institute of Forest Science), Michael BURNARD (InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska)

Presentation Time	No.	Title	Authors
16:00~16:15	1	Pursuing Excellence Through Experiential Learning: Undergraduate Leadership in Quality Control and Industry Engagement at the Forest Biomaterials Service Center	Daniel SALONI (North Carolina State University, US)
16:15~16:30	2	Sustainability and Innovation in Wood Sector Education: BOKU University Program Transformation	Lena Maria LEITER (BOKU University, Department of Natural Sciences and Sustainable Resources, Institute of Wood Technology and Renewable Materials, AT)
16:30~16:45	3	Professional Identity and Work Readiness in a Large-Scale Sustainability Infrastructure Project	Vera Junita SITANGGANG (Oregon State University, US), Pipiet LARASATIE (Virginia Tech, US)
16:45~17:00	4	The Vulnerability of Wood Science Programs in an AI-Driven Academic Landscape	Levente DENES (West Virginia University, US)

VI-1. Early Stage Researcher (ESR) 3-Minute Talks

Date & Time: June 9 (Tue), Time: 08:30~10:00
Location: Room A
Moderator(s): Se-Yeong PARK (Kangwon National University), Lena LEITER (BOKU University, Institute of Wood Technology and Renewable Materials)

Presentation Time	No.	Title	Authors
08:30~08:33	1	Design of Lignin-Based Hydrogels with Tunable Polyamine Structures for Efficient Pd Recovery and Catalytic Upcycling	Seon-Gyeong KIM (Seoul National University, KR), Seungoh JUNG (Seoul National University, KR), Jungkyu KIM (Seoul National University, KR), Junsik BANG (Seoul National University, KR), Sangwoo PARK (Seoul National University, KR), Chaeeun KIM (Seoul National University, KR), Dawoon SEO (Seoul National University, KR), Dongho SHIN (Seoul National University, KR), Suhyun OK (Seoul National University, KR), Chaewoo JEONG (Seoul National University, KR), Hyo Won KWAK (Seoul National University, KR)
08:33~08:36	2	Influence of Lignin Type and Nano-Microparticles Preparation Method on Properties of PLA Films	Ye-Jin JEONG (Department of Wood Science and Engineering, Chonnam National University; Interdisciplinary Program in IT-Bio Convergence System, Chonnam National University, KR), Jae-Won LEE (Department of Wood Science and Engineering, Chonnam National University; Interdisciplinary Program in IT-Bio Convergence System, Chonnam National University, KR)

Presentation Time	No.	Title	Authors
08:36~08:39	3	Interfacial Optimization in Fully Biodegradable Biomass Composites: Comparative Analysis of PLA, PBS, and PHA Matrices	Sangwoo PARK (Seoul National University, KR), Dongho SHIN (Seoul National University, KR), Junsik BANG (Seoul National University, KR), Jungkyu KIM (Seoul National University, KR), Seungoh JUNG (Seoul National University, KR), In-gyu CHOI (Seoul National University, KR), Hwanmyeong YEO (Seoul National University, KR), Hyo Won KWAK (Seoul National University, KR)
08:39~08:42	4	Tailoring Lignin Properties via Rational Binary Solvent Design Based on Hansen Solubility Parameter Clustering	Junsik BANG (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Sangwoo PARK (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Jungkyu KIM (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Seungoh JUNG (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Seon-Gyeong KIM (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Dawoon SEO (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Chaeeun KIM (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Dongho SHIN (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Su Hyun OK (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Chaewoo JEONG (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), In-Gyu CHOI (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR), Hyo Won KWAK (Department of Agriculture, Forestry and Bioresources, College of Agriculture & Life Sciences, Seoul National University, KR)
08:42~08:45	5	Tailoring Lignin Nanoparticles (LNPs) by Molecular Drilling and its Characterization	Yoonjung SHIN (Department of Wood Science and Landscape Architecture, Chonnam National University; Interdisciplinary Program in IT-Bio Convergence System, Chonnam National University, KR), Jae-Won LEE (Department of Wood Science and Engineering, Chonnam National University; Interdisciplinary Program in IT-Bio Convergence System, Chonnam National University, KR)
08:45~08:48	6	Control of Aggregation Behavior of Lignin Nanoparticles	Eunsun JOO (Department of Wood Science and Engineering, Chonnam National University, Interdisciplinary Program in IT-Bio Convergence System, Chonnam National University, KR), Jae-Won LEE (Department of Wood Science and Engineering, Chonnam National University, Interdisciplinary Program in IT-Bio Convergence System, Chonnam National University, KR)
08:48~08:51	7	Adsorption and Photocatalytic Degradation of Polyethylene Microplastics and Diazinon by KOH-Activated Pine Bark/TiO2 Composites	Jiwon YANG (Department of Wood Science and Engineering, Chonnam National University, KR), Yoonjung SHIN (Department of Wood Science and Landscape Architecture, Chonnam National University; Interdisciplinary Program in IT-Bio Convergence System, Chonnam National University, KR), Yoon PARK (Department of Wood Science and Engineering, Chonnam National University, KR), Jae-Won LEE (Department of Wood Science and Engineering, Chonnam National University; Interdisciplinary Program in IT-Bio Convergence System, Chonnam National University, KR)
08:51~08:54	8	Development of Enzyme-Immobilized Magnetic Biochar/Alginate Beads as an Industrial Enzyme Cocktails	Eun-Ju LEE (Department of Wood Science and Landscape Architecture, Chonnam National University; Interdisciplinary Program in IT-Bio Convergence System, Chonnam National University, KR), Jae-Won LEE (Department of Wood Science and Engineering, Chonnam National University; Interdisciplinary Program in IT-Bio Convergence System, Chonnam National University, KR)
08:54~08:57	9	Plasma-assisted enhancement of adhesion strength between alder veneer and thermoplastic LDPE film in veneer-based composites	Marek NOCIAR (Mendel University in Brno, CZ), Jozef RAHEL (Mendel University in Brno, CZ), Tomas PIPISKA (Mendel University in Brno, CZ), Pavlo BEKHTA (Mendel University in Brno, CZ), Barbora MAYER (Mendel University in Brno, CZ), Michal SULAK (Mendel University in Brno, CZ), Richard SLAVIK (Mendel University in Brno, CZ), Dimitrios TSALAGKAS (Mendel University in Brno, CZ), Jaroslav PANDA (Mendel University in Brno, CZ), Pavel KRAL (Mendel University in Brno, CZ)
08:57~09:00	10	Evaluation of Internal Defects in Pine Wood Using the Indirect Elastic-Wave Method	Kyoung-Hyun RYU (Dept of Wood and Paper Science, Chungbuk National University, KR), Hyeong-Jun HAN (Dept of Wood and Paper Science, Chungbuk National University, KR), Kug-Bo SHIM (Dept of Wood and Paper Science, Chungbuk National University, KR)
09:00~09:03	11	A Three-Stage Machine Learning Framework for Physically Consistent Biomass Property Prediction	Sunyong PARK (National Institute of Forest Science, KR), Jiwook YANG (National Institute of Forest Science, KR), Sungyeol KIM (National Institute of Forest Science, KR), Kyojung HWANG (National Institute of Forest Science, KR)

Presentation Time	No.	Title	Authors
09:03~09:06	12	Durability Performance of Modified Wood under Various Environmental Conditions	Sun Lul KWON (Department of Forest Products and Industry, National Institute of Forest Science, Republic of Korea, KR), Jae-Hee JUNG (Department of Forest Products and Industry, National Institute of Forest Science, Republic of Korea, KR), Hyun-Mi LEE (Department of Forest Products and Industry, National Institute of Forest Science, Republic of Korea, KR), Yong-Seok CHOI (Department of Forest Products and Industry, National Institute of Forest Science, Republic of Korea, KR), Won-Joung HWANG (Department of Forest Products and Industry, National Institute of Forest Science, Republic of Korea, KR)
09:06~09:09	13	Plasticizer for Poly (vinyl Chloride) (PVC) derived from -phellandrene	Youngmin CHO (Seoul National University, KR), Junho SHIN (Seoul National University, KR), Geun Woo HAN (Seoul National University, KR), Jonghwan CHOI (Seoul National University, KR), Hyo Won KWAK (Seoul National University, KR), In-Gyu CHOI (Seoul National University, KR)
09:09~09:12	14	Lignin-g-PEG Reactive Plasticizers for Cellulose Acetate Films: Role of PEG Molecular Weight in Mechanical, Thermal, and UV-Shielding Properties	Jonghwan CHOI (Seoul National University, KR), Youngmin CHO (Seoul National University, KR), Junho SHIN (Seoul National University, KR), Geunwoo HAN (Seoul National University, KR), In-Gyu CHOI (Seoul National University, KR)
09:12~09:15	15	Analysis of Building Energy and Hygrothermal Performance of Mass Timber Buildings: A Case Study of the Han-Green CLT Building	Beom Yeol YUN (National Institute of Forest Science, KR), Hyung Woo LEE (National Institute of Forest Science, KR), Chul-Ki KIM (National Institute of Forest Science, KR), Sang-Joon LEE (National Institute of Forest Science, KR)
09:15~09:18	16	Quantifying the Economic Impacts of Local Timber Value Chains: A Regional Input-Output Analysis of Chuncheon, South Korea	Eunjeong AHN (Seoul National University, KR), Hee HAN (Seoul National University, KR)
09:18~09:21	17	Regional Economic Impacts of Wood Utilization: The Case of Korea	Yiyang QIAO (National Institute of Forest Science, KR), Chang-Deuk EOM (National Institute of Forest Science, KR), Keon-Ho KIM (National Institute of Forest Science, KR), Dajung KIM (National Institute of Forest Science, KR)
09:21~09:24	18	Durability and Dimensional Stability of Densified Wood as an Engineered Wood Material	Nayun KIM (Gyeongsang National University, KR), Haedeun PARK (Gyeongsang National University, KR), Hyeonwoo JEONG (Gyeongsang National University, KR), Jiyeong BYEON (Gyeongsang National University, KR), Seong Jin CHANG (Gyeongsang National University, KR)
09:24~09:27	19	Life cycle assessment of carbon reduction in mid-rise timber buildings incorporating domestic timber supply and reforestation	Hyeonwoo JEONG (Gyeongsang National University, KR), Haedeun PARK (Gyeongsang National University, KR), Jiyeong BYEON (Gyeongsang National University, KR), Nayun KIM (Gyeongsang National University, KR), Seong Jin CHANG (Gyeongsang National University, KR)
09:27~09:30	20	Effect of Distillation Time on the Yield and Chemical Composition of Leaf Essential Oil from Abies koreana	Chanjoo PARK (National Institute of Forest Sciencce, KR), Nahyun KIM (National Institute of Forest Sciencce, KR), Soo-Kyeong JANG (National Institute of Forest Sciencce, KR), Da-Yun SEO (National Institute of Forest Sciencce, KR), Mi-Jin PARK (National Institute of Forest Sciencce, KR)
09:30~09:33	21	Carbonized Wood as a Thick Monolithic Electrode for Supercapacitors	Minjee KANG (Seoul National University, KR)
09:33~09:36	22	Sustainable Gel Polymer Electrolytes from Carboxymethyl Cellulose and Xylan-Based Crosslinkers	Junho SHIN (Seoul National University, KR), Youngmin CHO (Seoul National University, KR), Geunwoo HAN (Seoul National University, KR), Jonghwan CHOI (Seoul National University, KR), Seungoh JUNG (Seoul National University, KR), In-Gyu CHOI (Seoul National University, KR)
09:36~09:39	23	Comparative Evaluation of Machine Learning Models for Predicting Tree-ring Growth of Quercus mongolica under Climate Change	Yo-Seop LEE (Chungbuk National University, KR), Jeong-Wook SEO (Chungbuk National University, KR)
09:39~09:42	24	Glued-in perforated plate (GiP) connection for large-scale timber structures	Zhengyao LI (Chalmers University of Technology, SE), Mahbube SUBHANI (Chalmers University of Technology, SE), Robert JOCKWER (TU Dresden, DE), Mohammad AL-EMRANI (Chalmers University of Technology, SE)

VII-1. IUFRO DIV.5. with 2026 SWST in Korea: Wood Properties and Utilization

Date & Time: June 10 (Wed), 08:30~10:00
Location: Room C
Moderator(s): Hyo Won KWAK (Seoul National University), Guo JUAN (Research Institute of Wood Industry, Chinese Academy of Forestry)

Presentation Time	No.	Title	Authors
08:30~08:45	1	Tunable-performance sustainable bamboo composites via thinning and bioinspired layered reassembly	Xianke WANG (International Centre for Bamboo and Rattan, CN), Yang YICHEN (International Centre for Bamboo and Rattan, CN), Changhua FANG (International Centre for Bamboo and Rattan, CN)
08:45~09:00	2	A Fully Bio-Based UV-Curable Flame-Retardant Coating Derived from Palm Oil and Phytic Acid for Wood Protection	Wendi LIU (Fujian Agriculture and Forestry University, CN), Zelong CAI (Fujian Agriculture and Forestry University, CN), Yizhen CHEN (Fujian Agriculture and Forestry University, CN)
09:00~09:15	3	Development of a Palm Oil-Based Bio-Adhesive for Formaldehyde-Free Bamboo Particleboards: Interface Enhancement and Process Optimization	Renhui QIU (Fujian Agriculture and Forestry University, CN), Shiwen HE (Fujian Agriculture and Forestry University, CN), Yizhen CHEN (Fujian Agriculture and Forestry University, CN), Wendi LIU (Fujian Agriculture and Forestry University, CN)
09:15~09:30	4	A Study on the Preparation of High-Performance Formaldehyde-Free Plywood via In-Situ Polymerization of a Polymerizable Deep Eutectic Solvent	Chenghua WANG (Southwest Forestry University, CN)
09:30~09:45	5	Lignin-rich tyloses regulate competitive water-ethanol co-diffusion and suppress hyperswelling in oak wood	Tao SHI (Nanjing Forestry University, CN), Jianxiong LYU (Nanjing Forestry University, CN), Tianyi ZHAN (Nanjing Forestry University, CN)
09:45~10:00	6	Multi-Scale Oriented Reconstruction and Functional Enhancement of Bio-based Composite Materials	Yue QI (Research Institute of Wood Industry, Chinese Academy of Forestry, CN), Namhun KIM (College of Forest and Environmental Sciences, Kangwon National University, KR), Wenji YU (Research Institute of Wood Industry, Chinese Academy of Forestry, CN), Yahui ZHANG (Research Institute of Wood Industry, Chinese Academy of Forestry, CN)

Date & Time: June 10 (Wed), 10:30~11:45
Location: Room C
Moderator(s): Hyo Won KWAK (Seoul National University), Guo JUAN (Research Institute of Wood Industry, Chinese Academy of Forestry)

Presentation Time	No.	Title	Authors
10:30~10:45	1	Multi-scale Mechanisms and Intelligent Prediction of Environmental weathering behavior in Bamboo Scrimber	Bingbing LI (Research Institute of Wood Industry, Chinese Academy of Forestry, CN), Yue QI (Research Institute of Wood Industry, Chinese Academy of Forestry, CN), Wenji YU (Research Institute of Wood Industry, Chinese Academy of Forestry, CN), Yahui ZHANG (Research Institute of Wood Industry, Chinese Academy of Forestry, CN)
10:45~11:00	2	In-Situ Construction of Thermoresponsive Shape Memory Polymer Network to Improve Bamboo's Processability and Mold Resistance	Sun FANGLI (Zhejiang A&F University, CN), Nan OHNMAR-KYAW (Zhejiang A&F University, BG), Wu XINXING (Zhejiang A&F University, CN), Ren XIN (Zhejiang A&F University, CN)
11:00~11:15	3	Wood Structure and Properties for Wooden Cultural Relics Conservation	Guo JUAN (Research Institute of Wood Industry, Chinese Academy of Forestry, CN)
11:15~11:30	4	Evaluation of tree growth and wood quality for young Paulownia trees planted in Japan	Ikumi NEZU (Utsunomiya University, JP), Umi Latifah Dyah DHARMAWATI (Utsunomiya University, ID), Hikari YOKOYAMA (Utsunomiya University, JP), Jyunichi OHSHIMA (Utsunomiya University, JP), Shinso YOKOTA (Utsunomiya University, JP), Futoshi ISHIGURI (Utsunomiya University, JP), Masashi NIHEI (KKBC, JP), Shigeru KATO (KKBC, JP), Naoki OTANI (Tochigi Pref. For. Res. Cen., JP)
11:30~11:45	5	Developmental Changes in Cell Wall Structure and Chemical Composition in the Xylem of Pinus massoniana	Jiangtao SHI (Nanjing Forestry University, CN)