**Light for Plants and Future** 

## Official CV Form

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Full Name	Jung Eek Son	
Current Position & Affiliation	Professor Emeritus, Seoul National University	
Education		Date
BS, Dept of Agricultural Engineering, Seoul National University		1982. 2
MS, Dept of Agricultural Engineering, University of Tokyo		1985. 3
PhD, Dept of Agricultural Engineering, University of Tokyo		1988. 9
Professional Experience		
Systems Analyst, IBM, Korea		1982.01 - 1982.12
Post-doctor, Yokogawa (Japan); Purdue University (USA)		1988.10 - 1991.06
Special Researcher, Seoul National University, Korea		1991.08 - 1995.02
Assistant Professor, Konkuk University, Korea		1995.03 - 1997.02
Assistant Professor, Associate Professor, and Professor,		1997.03 - 2022.08
Dept of Plant Science, Seoul National University, Korea		
Professor Emeritus, Seoul National University, Korea		2022.09 - current
Award		
Honors: Minister of Education, Science & Technology; Prime Minister;		2012/2019
President of Korea		2022
Academic Achievement Awards: Korean Society of Horticultural		2015
Science; Korean Society for Bio-environmental Control		2016
<b>Excellent Paper Awards:</b> Korean Society for Bio-environmental		2002
Control; Korean Society of Horticultural Science; Korean Federation of		2011/2021
Science and Technology Societies		2006/2011/2014
Major Publication		

## **Major Publication**

I Hwang, S Yoon, D Kim, JH Kang, JH Kim, JE Son\* (2023) Evaluation of the effects of supplemental lighting and stem number on greenhouse sweet pepper growth and yield via ray-tracing simulation with 3D plant models. BioSyst Eng 226:252-265

T Moon, D Kim, S Kwon, JE Son\* (2023) Process-based crop modeling for high applicability with attention mechanism and multi-task decoders. Plant Phenomics 5:0035

JH Kang, HI Yoon, J Kim, TI Ahn\*, JE Son\* (2023) Ray-tracing analysis on the far-red induced lightcapturing ability of kale. Sci Hortic 311:11806

HI Yoon, J Kim, JE Son\* (2022) Evaluation of UV-B lighting design for phenolic production in kale plants using optical simulation with three-dimensional plant models in plant factories. BioSyst Eng 221:1-18

 2024 May 19(Sun) ~ 22(Wed) Lotte Hotel World, Seoul, Korea

## **Light for Plants and Future**

D Kim, JE Son\* (2022) Adding far-red to red, blue LED interlighting improved sweet pepper yield but attenuated carotenoid content. Front Plant Sci 13:938199

JH Kang, HI Yoon, KM Lee, JP KIm, JE Son\* (2022) Electron transport and photosynthetic performance in Fragaria×ananassa Duch. acclimated to solar spectrum modified by spectrum conversion film. *Photosynth Res* 151:31-46

HI Yoon, HY Kim, J Kim, JE Son\* (2021) Quantitative analysis of UV-B radiation interception and bioactive compound contents in kale by leaf position according to growth progress. Front Plant Sci 12:667456

T Moon, JE Son\* (2021) Knowledge transfer for adapting pre-trained deep neural models to predict different greenhouse environments based on a low quantity of data. Comput Electron Agric 185: 106136

J Shin, I Hwang, D Kim, T Moon, J Kim, WH Kang, JE Son\* (2021) Evaluation of the light profile and carbon assimilation of tomato plants in greenhouses with respect to film diffuseness and regional solar radiation using ray-tracing simulation. Agric Forest Meteorol 296:108219

D Kim, WH Kang, I Hwang, J Kim, JH Kim, KS Park, JE Son\* (2020) Use of structurally-accurate 3D plant models for estimating light interception and photosynthesis of sweet pepper (Capsicum annuum) plants. Comput Electron Agric 177:105689