

# Yelin Ko

Master's Student

## COM:FORT Lab (Clothing and Omnicare for Thermoregulation; Clothing & Health Lab)

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## Education

Mar. 2018 – Present	MS; COM:FORT Lab / Clothing and Omnicare for Thermoregulation Laboratory, Department of Textiles, Merchandising and Fashion Design, College of Human Ecology, Seoul National University.
Mar. 2013 – Feb. 2018	BS; Department of Textiles, Merchandising and Fashion Design, College of Human Ecology / Department of Business Administration, College of Business Administration, Seoul National University / Summa cum Laude.

Status	Paper Publications	*Corresponding author
<i>In Preparation</i>	<b>Y Ko</b> , S Seoul, G Kim, H Yoo, JY Lee* (2020), <b>Haenyeo in Jeju</b>	
<i>Under Review</i>	<b>Y Ko</b> , S Seol, J Kang, JY Lee* (2020), <b>Adaptive Changes in Physiological and Perceptual Responses during 10-day Heat Acclimation Trainings Using a Water-perfused Suit.</b> <i>Journal of Physiological Anthropology.</i>	
<i>Under Review</i>	<b>Y Ko</b> , J Kang, S Seol, JY Lee* (2020), <b>10-day Heat Acclimation Using a Water-perfused suit: passive and post-exercise strategies.</b> <i>European Journal of Applied Physiology.</i>	

- Under Review*      **Y Ko, K Heo, KR Kim, JY Lee\*** (2020), **Age-related Differences in heat acclimatization induced during naturally hot and humid summer exposures.** *International Journal of Biometeorology*.
- Under Review*      **Y Ko, S Shin, YS Choi, SY Park, JY Lee\*** (2020), **Thermal Effects of Copper-graphene Composite Films in a Human Skin Analogous for the Application to Clothing.** *Journal of Clothing Science and Technology*.
- Published*            J Park, D Jung, **Y Ko, YS Choi, BH Hong, JY Lee\*** (2019), **Surface Temperature Distribution of Microwave Reduced-graphene-oxide Coated Polyester Fabric: Surface Effects at Room Temperature.** *Fibers & Polymers, 20(12), 2611-2617*.
- Published*            SH Roh, **Y Ko, JY Lee\*** (2019), **Physiological and Subjective Burden when Wearing Fire Protective Boots between 3.2 to 5.3 kg.** *Fashion and Textiles (E-pub)*.
- Published*            **Y Ko, JY Jung, H Kim, JY Lee\*** (2019), **Auditory Canal Temperature Measurement Using a Wearable Device during Sleep: Comparisons with Rectal Temperatures at 6, 10 and 14 cm Depths.** *Journal of Thermal Biology. 85: 102410*.
- Published*            J Park, KJ Heo, D Jung, **Y Ko, JY Lee\*** (2019), **Validation of Wearable Blood Pressure Monitoring and Effects of Clothing Microclimate on Blood Pressure in the Hypertensive Elderly** (고혈압 고령자 대상 웨어러블 혈압계의 측정 타당성 및 의복 기후의 영향). *Journal of Korean Society of Living Environmental System, 26(2), 239-253*.
- Published*            **Y Ko, JY Lee\*** (2018), **Effects of Feet Warming Using Bed Socks on Sleep Quality and Thermoregulatory Responses in a Cool Environment.** *Journal of Physiological Anthropology, 37(1):13*.
- Published*            C Yun, **Y Ko, GH Song, H Shin, CH Park\*** (2017) **The Effects of Washing and Drying on the Dimensional Stability of Woven Fabrics with and without Spandex** (세탁 및 건조과정에 의한 스판덱스 혼방 직물의 변형 비교). *Journal of the Korean Society of Clothing and Textiles, 41(3), 458-467*.

### Proceedings and Abstracts

\*Presenter

- Ko Y\***, Seol S, Kang J, Lee JY (2019) **Physiological and Perceptual Changes during 10-day Heat Acclimation using a Water-perfused Suit in a Warm and Humid Environment.** 14<sup>th</sup> International Congress of Physiological Anthropology (ICPA), Singapore, Sep 24-27 (Poster)
- Ko Y\***, Kang J, Seol S, Lee JY (2019) **10-day Heat Acclimation Using a Water-perfused Garment.** 18<sup>th</sup> International Conference on Environmental Ergonomics (ICEE), Amsterdam, Netherlands, July 7-12 (Oral)
- Ko Y\***, Jung JY, Kim H, Lee JY (2019) **Comparisons of Core Body Temperatures During 7-hour Sleep: Rectal at 6, 10, 14 cm Depth, Ear Canal, and Sublingual Temperatures.** 18<sup>th</sup> International Conference on Environmental Ergonomics (ICEE), Amsterdam, Netherlands, July 7-12 (Poster)

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- Lee JY\*, Baek YJ, Jung D, Ko Y (2019) **Evaluation of Elderly Males' Heat Strain during Light Activities in Hot and Humid Environments.** 18<sup>th</sup> International Conference on Environmental Ergonomics (ICEE), Amsterdam, Netherlands, July 7-12 (Poster)
- Park J\*, Heo KJ, Jung D, Ko Y, Lee JY (2019) **Validation of Wearable Blood Pressure Monitor in the Hypertensive Elderly.** 18<sup>th</sup> International Conference on Environmental Ergonomics (ICEE), Amsterdam, Netherlands, July 7-12 (Poster)
- Ko Y\*, Heo K, Lee JY (2018) **Age-related Differences in Thermoregulatory and Subjective Responses Before and After Acclimatization to Natural Summer Heat.** 7<sup>th</sup> International Conference on the Physiology and Pharmacology of Temperature Regulation (PPTR), Split, Croatia, Oct 7-12 (Oral)
- Ko Y\*, Lee JY (2018) **Influences of Feet Warming during Sleep on Thermoregulatory Responses and Sleep Quality in a Cool Environment.** 7<sup>th</sup> International Conference on the Physiology and Pharmacology of Temperature Regulation (PPTR), Split, Croatia, Oct 7-12 (Poster)
- Kim DH\*, Ko Y, Lee JY (2018) **Development and Evaluation of Firefighting Shirts with both Cooling and Drinking Functions to Alleviate Heat Strain in Summer.** 8<sup>th</sup> European Conference on Protective Clothing (ECPC), Porto, Portugal, May 7-9 (Oral)
- Roh SH\*, Ko Y, Kim DH, Lee JY (2018) **Exploring Weight Limit Thresholds of Fire Protective Boots at an Air Temperature of 28°C.** 8<sup>th</sup> European Conference on Protective Clothing (ECPC), Porto, Portugal, May 7-9 (Oral)
- Lee JY\*, Ko Y, Park J (2017) **Effects of 28-day Cold and Heat Cross Exposure on Thermoregulatory and Behavioral Responses in Mice.** 17<sup>th</sup> International Conference on Environmental Ergonomics (ICEE), Kobe, Japan, Nov 12-17 (Oral)
- 정재연\*, 강주호, 설선희, 고예린, 강민주, 김현태, 송종현, 유지인, 이세봄, 정혜연, 조은소리, 홍유진, 이주영 (2019) **인체 서열 부담 경감에 효과적인 인체 냉각 부위 및 최적 냉각 온도 탐색.** 한국의류학회 추계학술대회, 2019년 10월 19일, 서울 (Poster)
- 이주영\*, 박준희, 백윤정, 정다희, 고예린, 정재연, 강주호, 이태경, 이예진, 송은영, 손수영, 권주연, 김선화 (2019) **미세먼지 농도 시즌 방진용 마스크에 대한 인식과 착용 행동에서 전국 지역별 차이.** 한국의류학회 추계학술대회, 2019년 10월 19일, 서울 (Poster)
- 강주호\*, 설선희, 고예린, 이주영 (2019) **서멀마네킹과 인체착용평가를 통한 대한민국 육군 방한복의 성능 평가: 현행 및 개선 방한복 비교.** 한국지역사회생활과학회 춘계학술대회, 2019년 4월 26일, 서울 (Poster)
- 고예린\*, 강주호, 설선희, 이주영 (2019) **액체순환의복을 이용한 10일 간의 단기 열 적응 훈련이 인체 생리 반응에 미치는 영향.** 제 45회 한국의류학회 춘계학술대회, 2019년 4월 20일, 서울 (Poster)
- 고예린\*, 허강준, 김규량, 이주영 (2018) **여름철 자연 더위 적응 전후 내열성 변화에서 연령의 영향.** 한국생활환경학회 추계학술대회, 2018년 12월 1일, 서울 (Oral)
- 고예린\*, 김현태, 정재연, 이주영 (2018) **수면 중 웨어러블 귓속형 체온계의 심부온 측정 타당도 평가.** 한국의류학회 추계학술대회, 2018년 10월 20일, 서울 (Poster)

김도희\*, 고예린, 최정윤, 강구현, 서교, 정찬훈, 이주영 (2017) 극한 화염 노출 시 소방용 개인보호장비의 열보호 성능 평가를 위한 실화재 노출시험. 한국화재소방학회 춘계학술대회, 2017년 11월 16일, 대림대학교, 서울 (Poster)

고예린\*, 김도희, 이주영 (2017) 여름철 폭염 속 '전신인형탈' 근로자들의 서열부담 평가 -Pilot study-. 제 42회 한국의류학회 춘계학술대회, 2017년 10월 21일, 서울 (Poster)

### Scholarships

2013. 03. 01 ~ 06.30 Admission Scholarship (Full amount)  
Source of Funds: Jeonbuk Girls' High School

2013. 09. 01 ~ 12. 31 Eminence Scholarship (Full amount)  
Source of Funds: Seoul National University

2014. 03. 02 ~ 12. 31  
2015. 03. 02 ~ 06. 30  
2016. 09. 01 ~ 12. 31

2018. 03. 02 ~ 12. 31 Merit-based Scholarship (Full amount)  
Source of Funds: Seoul National University

2019. 09. 01 ~  
2020. 02. 28 Lecture & Research Scholarship (Full amount)  
Source of Funds: Seoul National University

2014. 09. 01 ~ 02. 28 Duo-Korea 2015 Student Fellowship Award  
Source of Funds: ASEM-DUO Fellowship

### Awards

2019. 09. 27 Best Poster Presentation Award at the 14<sup>th</sup> International Congress of Physiological Anthropology

2019. 04. 26 Best Poster Presentation Award at the Korean Society of Community Living Science  
한국지역사회생활과학회 춘계학술대회 우수논문상 (포스터 부문)

2018. 12. 01 Best Oral Presentation Award at the Society of Korean Living Environmental System  
한국생활환경학회 춘계학술대회 우수논문상 (구두 부문)

2017. 01. 13 Best Thesis Award of a Bachelor's Degree

	학사학위논문 최우수 논문상
2016. 09. 22	Dean’s List of the College of Human Ecology
2016. 05. 24	대학 창업유망팀 300
2013. 06. 05	Best Poster Presentation Award at the course ‘Introduction to Human Ecology’ 생활과학의 이해 포스터 발표 최우수상

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**Projects involved**

May. 2017 – Present	Integrated design and fabrication of textiles composites based on graphene fibers  <i>Fund: National Research foundation of Korea (NRF)</i> <i>PI: Joo-Young Lee</i>
Apr. 2018 – Nov. 2018	Qualification of heat stress of Korean adult males for the optimization of perceived temperature model  <i>Fund: National Institute of Meteorological Sciences</i> <i>PI: Joo-Young Lee</i>
July. 2018 – Sep. 2018	Validity of newly-developed wearable ear thermometer while 7-hr sleeping (쾌적 수면 중 LG 귓속형 체온계의 타당도 평가)  <i>Fund: LG Electronics</i> <i>PI: Joo-Young Lee</i>
Sep. 2018 – Sep. 2018	고혈압 환자 대상 손목 밴드 타입 웨어러블 혈압계의 타당도 평가  <i>Fund: Patron corporation</i> <i>PI: Joo-Young Lee</i>
Mar. 2019 – Present	Quantifying workers’ heat strain according to personal protective clothing level under heat waves in summer and development of non-invasive heat strain index  <i>Fund: National Research foundation of Korea (NRF)</i> <i>PI: Joo-Young Lee</i>

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**Patents**

이동식 방화쉘터	발명의 명칭: Movable fire shelter 출원번호: 10-2018-0104786
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	출원일자: 2018.09.03 출원인: 서울대학교 산학협력단 (1-2007-050924-2) 발명자: 이주영 박준희 정다희 고예린 출원국가: 대한민국
정전기 제어장갑	발명의 명칭: Gloves for controlling static electricity 출원번호: 10-2018-0104787 출원일자: 2018.09.03 출원인: 서울대학교 산학협력단 (1-2007-050924-2) 발명자: 이주영 박준희 정다희 고예린 출원국가: 대한민국
전자파 차폐 부재 및 이를 포함하는 기능성 의복	발명의 명칭: Membrane for shielding electromagnetic wave and functional clothes having the same 출원번호: 10-2018-0104788 출원일자: 2018.09.03 출원인: 서울대학교 산학협력단(1-2007-050924-2) 발명자: 이주영 박준희 정다희 고예린 출원국가: 대한민국

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### Extracurricular Experiences

Nov. 2019 Jan. 2020	Joint Experiment with University of California, Berkeley. Advisor: Rasmus Nielsen, Melissa Ilardo, Joo-Young Lee
Aug. 2019 – Sep. 2019	Kyushu University Summer School Participation, Lab. Environmental Ergonomics, Kyushu University, Japan Advisor: Takafumi Maeda
Mar. 2018 – Aug. 2018 Sep. 2019 – Feb. 2020	Teaching Assistant in Lab. COM:FORT, Seoul National University, Korea Advisor: Joo-Young Lee
May. 2017 – Feb. 2018	Internship in Lab. COM:FORT, Seoul National University, Korea Advisor: Joo-Young Lee
Feb. 2016 – June. 2016	Visual designer of SNU Buddy, Seoul National University, Korea
Sept. 2015 – Jan. 2016	Exchange Program, University of Leeds, United Kingdom
June. 2015	Best buddy award, SNU Buddy, Seoul National University, Korea
Feb. 2015 – June. 2015	Group headmaster of SNU Buddy, Seoul National University, Korea
Feb. 2014 – June. 2014	Active member of SNU Buddy, Seoul National University, Korea

Oct. 2014 – Mar. 2016

Marketer / Team headmaster, PAM, AK Plaza, Korea

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