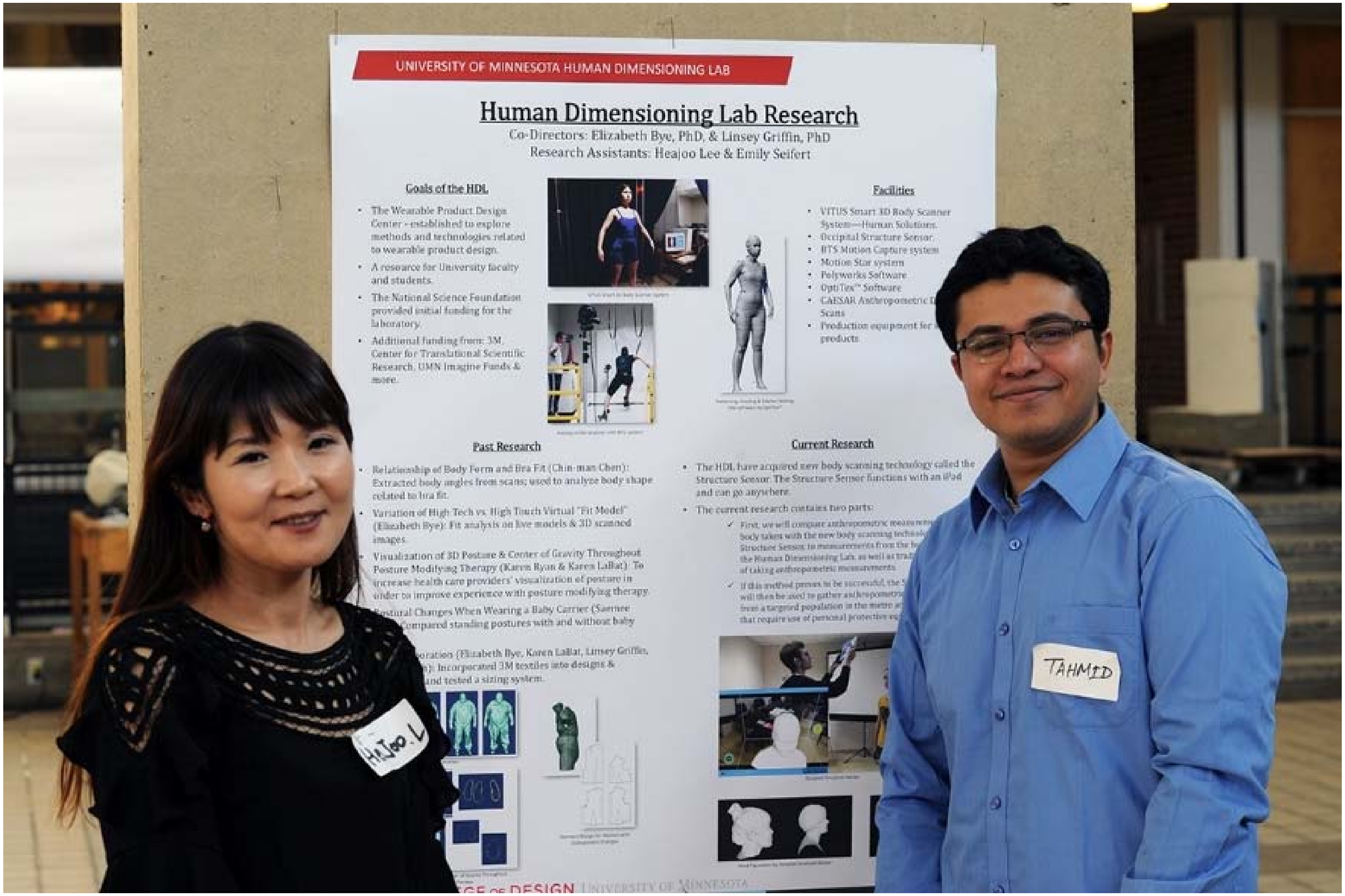
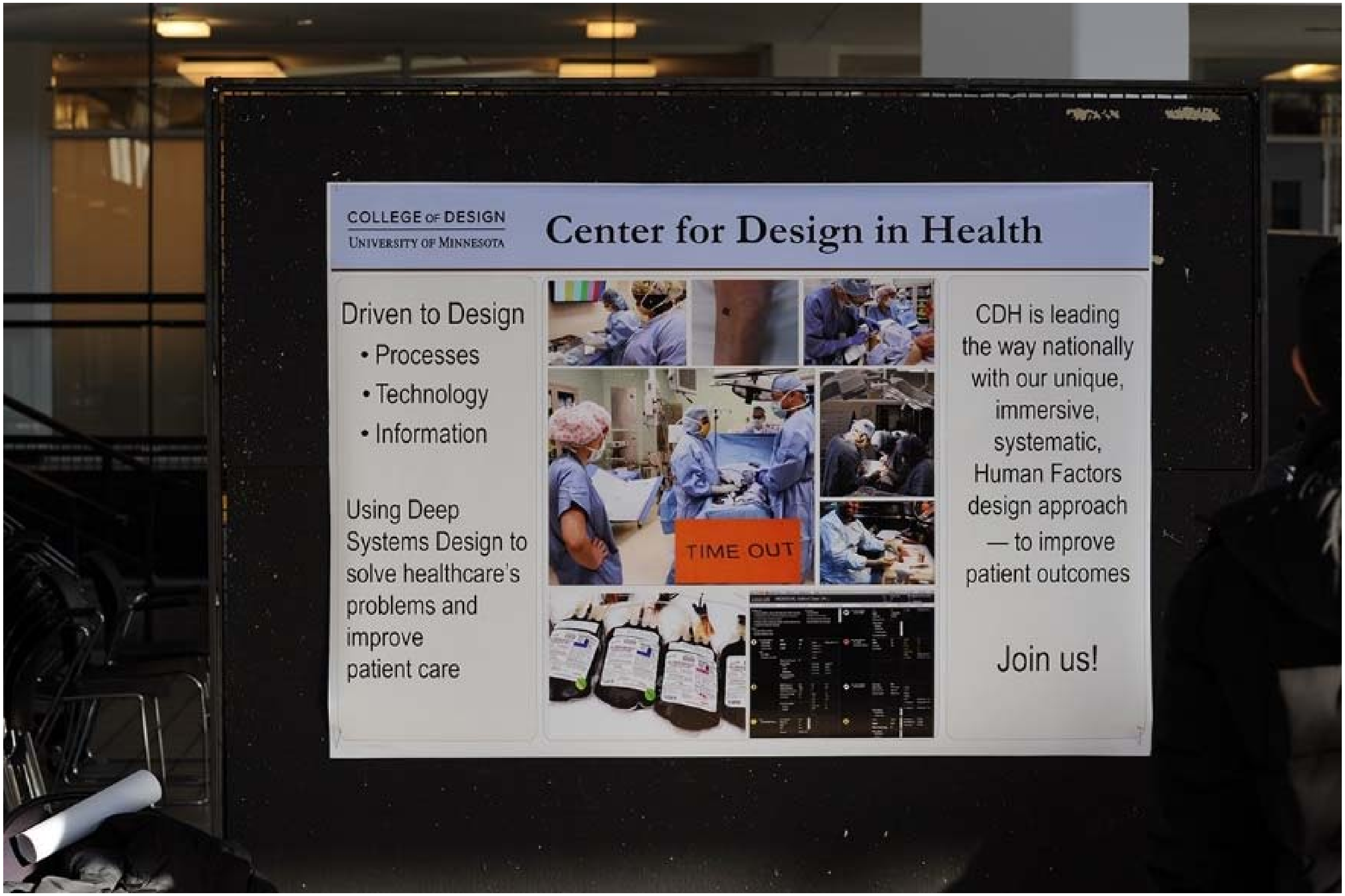

UNIVERSITY OF MINNESOTA HUMAN DIMENSIONING LAB
Human Dimensioning Lab Research
Co-Directors: Elizabeth Bye, PhD, & Linsey Griffin, PhD
Research Assistants: Heajoo Lee & Emily Seifert
Goals of the HDL
The Wearable Product Design Center - established to explore methods and technologies related to wearable product design.
A resource for University faculty and students.
The National Science Foundation provided initial funding for the laboratory.
Additional funding from: 3M, Center for Translational Scientific Research, UMN Imagine Funds & more.
Facilities
VITUS Smart 3D Body Scanner System—Human Solutions.
Occipital Structure Sensor.
BTS Motion Capture system
Motion Star system
Polyworks Software
OptiTex™ Software
Past Research
Relationship of Body Form and Bra Fit (Chin-man Chen): Extracted body angles from scans; used to analyze body shape related to bra fit.
Variation of High Tech vs. High Touch Virtual "Fit Model" (Elizabeth Bye): Fit analysis on live models & 3D scanned images.
Current Research
The HDL have acquired new body scanning technology called the Structure Sensor. The Structure Sensor functions with an iPad and can go anywhere.
The current research contains two parts:
TAHMID
HEJOO.L


University of Minnesota Wearable Technology Lab
GIRAFFE - Garment Integrated Remote Awareness For Fluid Emission
Esther Foo, Robert MF Pettys-Baker, Lucy Dunne
University of Minnesota Wearable Technology Lab
Toward Personal Microclimate: Sustainable Heating Through Smart Clothing


University of Minnesota Wearable Technology Lab
ign and Development of Valgus-Sensing Leggings
COLLEGE OF DESIGN
University of Minnesota Wearable Technology Lab
Durability of Stitched Surface-Mount Electronics
Mary Ellen Berglund, Md Tahmidul Islam Molla, Steven Goodman, Nicholas Schlief, Lucy E. Dunne
Department of Design, Housing, and Apparel, University of Minnesota
COLLEGE OF DESIGN
University of Minnesota Wearable Tech
Development of Elasto
for On-Body Dynamic P
Mary Ellen Berglund, Esther Foo, Brad Holsc
COLLEGE OF DE

GARY PINES
MASTER PLAN
FINAL REPORT
MASTER PLAN | TRAILS


Stitched Surface-Mount Electronics
GIRAFFE - Garment Integrated Remote Awareness for Fluid Emission
Toward Personal Microclimate: Sustainable Heating Through Smart Clothing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