SUMMARY OF RESEARCH ACTIVITIES

The following is a summary of research/creative activities completed since September 2005.

<table>
<thead>
<tr>
<th>PUBLICATIONS</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Refereed: Journal articles</td>
<td></td>
</tr>
<tr>
<td>Published-5</td>
<td>6</td>
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<tr>
<td>Under review process-1</td>
<td></td>
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<tr>
<td>Referred: Proceedings/abstracts</td>
<td></td>
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<tr>
<td>Proceedings-15</td>
<td>17</td>
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<tr>
<td>Abstracts-2</td>
<td></td>
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<tr>
<td>Non refereed: Articles &amp; Industry reports</td>
<td>3</td>
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<tr>
<td>Grant reports</td>
<td>10</td>
</tr>
<tr>
<td>Total publications since 2005</td>
<td>36</td>
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<table>
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<tr>
<th>PRESENTATIONS</th>
<th>Total</th>
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<tbody>
<tr>
<td>Refereed: Presentations (International/ National)</td>
<td>16</td>
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<tr>
<td>Invited: Presentations (International/National)</td>
<td>3</td>
</tr>
<tr>
<td>Presentations (Regional / local)</td>
<td>5</td>
</tr>
<tr>
<td>Total presentations since 2005</td>
<td>24</td>
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</tbody>
</table>

RESEARCH GRANTS
Internal grants funded – 4 ($10,000.00)
External grant funded – 1 ($2,151.00)
External/ Internal grants submitted– 10 ($113,810.21)

GRANTS AND SPONSORED RESEARCH:

Recent Submission
- Shin, S. (Principal), Grant, Faculty Research Funding Opportunity, Center for Undergraduate Research, Texas Tech University. $1,000.00 Submitted. (2010).

Funded
- Shin, S. (Principal), & Amor, C., Sponsored Research, "Fit assessment process using a 3D virtual model", Academy, Ltd (Global Sourcing), Private, $42,820.00. Funded for traveling fund $2,151.00 (2010).
  - Description: This project is to provide a fit assessment tool, using 3D virtual model software that can be compatible to the 3D scan data, understanding the apparel company’s needs of the fit assessment. The data conversion with compatibility and reliability is a common issue among CAD/CAM users, vendors, and contractors.


Summary of Research Activities (2005-2010)

- **Shin, S.** (Principal), Grant, “Human Body Size and Fit Preferences: Size USA Data Analysis and Pilot Study of Children Size USA”, College of Human Sciences, Texas Tech University. $4,500.00 Funded. (2005-2006).

Not Funded

- Shin, S. (Principal), Grant, "NViVo teaching grants", QSR International (Americas) Inc, Private, $10,000.00, Not Funded. (sub: June 30, 2009).

- Istook, C (NC State University), Shin, S (Texas Tech), & Lovejoy, J. ([TC]²), Grant, “Modeling the Shapes & Sizes of the 11-17 year old consumer”, Competency: Systems-product & Systems Engineering, National Textile Center, $15,000.00 Not Funded (2006).


**RESEARCH ACTIVITY:**

  - Description: This project is to develop standard sizing systems using 3D scan technology and 3D pattern/virtual model software. It includes three phases. In phase I (data collection), I have been conducting “Teen SizeUSA” sizing survey, relating to the current fit issues in the young age groups (Junior size category, but wear Missy sizes), and scanned about a hundred teens (ages 11~18) with an IRB approval. In phase II (data analysis), I’ve been analyzing SizeUSA data of about 10,000 of men and women’s body dimensions, with supporting data from [TC]2 and Dillard’s service. (The SizeUSA national sizing survey using the 3D body scan technology was conducted by [TC]2 between 2002 and 2003.) As a part of my project goals in the final phase (development and implement), it is necessary to create a 3D model using 3D virtual model software. I also have been looking for a 3D pattern/virtual model software program that can be compatible to the 3D scan data for the fit assessment.

  - Description: conducting “Teen SizeUSA” sizing survey, relating to the current fit issues in the young age groups (Junior size category, but wear Missy sizes), and scanned about a hundred teens (ages 11~18) with an IRB approval. About a hundred teens have been participated in this project. In analyzing process.

- **Shin, S, Jinhee Lee, & Yoshiko Odamaki**, Collaborate Research, “Comparison study: Fit issues and Y generation’s purchase decisions” (2009-present)
  - Description: This is collaborate research with WonKwang University in S. Korea and Tanakashio University in Tokyo, Japan. Surveyed Y generations in Japan, S. Korea and United States. Collected data were analyzed by each country and compared each country’s
Y generation’s purchase decision factors and fit issues. Results and research progress were presented in Korean Society of Clothing & Textiles (KSCT) and International Textiles and Apparel Association (ITAA) and a result from this research has been published in Research Journal of the Costume Culture (RJCC) in South Korea.

- **Shin, S, Hyunsook Han, & YoonJa Nam, Collaborate Research, "Identifying landmarks on various body shapes from the 3D body scan", Writing Results, Scholarly (2009-2010).**
  - Description: This is collaborative research with Seoul National University in South Korea, having a common interest in 3D body scan technology and problems with current automatic landmarks that were already programmed by body scan developers. In order to find a solution, it was necessary to define locations of each landmark on various body shapes and to investigate if automatically programmed landmarks can be applied to any body shapes. Results were presented in International Textiles and Apparel Association (ITAA) and published in International Journal of Clothing Science and Technology (IJCST).

- **Shin, S. (Principal), Sponsored Research, "Developing Menswear Sizing Systems", [TC]² Corporation & Dillard’s, Private (2006- present). Received 4,600 of SizeUSA 3D scan data (equal to $4,000.00)**
  - Description: Analyzing SizeUSA data of about 10,000 of men and women’s body dimensions, with supporting data from [TC]2 and Dillard’s service. (The SizeUSA national sizing survey using the 3D body scan technology was conducted by [TC]2 between 2002 and 2003.) Results were presented in American Society for Testing and Materials (ASTM) International Standard Organization, International Textiles and Apparel Association (ITAA), and USASizeUser’s Group Webinar.

- **Shin, S, & Cynthia Istook, Sponsored and Collaborate Research, "Women’s body shape analysis and Missy sizing systems", Writing Results, Scholarly. [TC]² Corporation (2005-2010).**
  - Description: This is collaborate research with North Carolina State University to investigate current women’s sizing systems and define various body shapes. Results were published in International Journal of Consumer Studies (IJCS) and presented in International Textiles and Apparel Association (ITAA).

  - Description: This is collaborate research to examine the differences of image perception in fashion design utilizing cultural elements between Korean and American students. This research provided an insight of cross-cultural viewpoints and factors by comparing and analyzing the fashion image perception and preferences in cultural contexts. A survey was designed to ask the subjects how they feel and identify with a specific fashion design. About two hundred students majoring in apparel design in Hanyang University, Woosung University in South Korea and Texas Tech University in the United States were participated in this survey with IRB approval. In analyzing process and writing results.
OTHER SPONSORED CREATIVE ACTIVITIES / PROJECTS

  - Sponsored by South Plains Mall
  - Description: A theme focused on “Green Project- Reduce, Reuse, and Recycle”. 18 apparel design students participated in this project, designing creative garments with recycle materials. Collaborated with United State Green Council (USGC) -student organization in Texas Tech University. Exhibition of this green project was sponsored by South Plains Mall, Lubbock, TX (2010).

- **Shin, S., Amor, C. & Haynie,** Sponsored project, “**Denim Runway Project**” (2010).
  - Sponsored by Plains Cotton Corporative Association (PCCA)/Cotton Council International (CCI).
  - Description: Collaborating PCCA’s re-branding SAFEDenim jeans and developing a design for a more fashion forward style in PCCA’s target consumers. Denim Runway Jeans Design Contest was created and co-sponsored by Plains Cotton Cooperative Association (PCCA) and Cotton Council International (CCI) in collaboration with Apparel Design and Manufacturing (ADM). Apparel design manufacturing and apparel production students participated in denim runway project. Plains Cotton Corporative Association (PCCA) provided high fashion denim samples to ADM contestants, a tour of cotton mill, American Cotton Grower in Littlefield, provided them the opportunity to present their design to PCCA through Denim Runway Jeans Design Contest. ADM Winners were announced at TechStyle Senior Fashion show on April 24. PCCA and CCI provided trip awards of visiting apparel manufactures in Guatemala and “Columbiamoda” apparel manufacturer’s trade show in Columbia.

  - Sponsored by JeonJu Fashion Organization, South Korea.
  - Invited by the organization for 2008 international jenju hanji festival; 7 students participated in this project, creating garments based on a theme, West Texas. Inspirations were from sky, wind, earth, and cotton filed in west Texas. Submitted garments for 2008 International Fashion Show” in JeonJu, South Korea.