AVONI A. R. GHARDE

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EDUCATION

North Carolina State University, Raleigh, NC — *Expected Graduation: May 2019*

- *Ph.D. in Textile Technology Management (co-major in Fiber & Polymer Science)*
- GPA 3.97/4.00

Institute of Chemical Technology (ICT), Mumbai, India — *August 2011 – June 2015*

- *Bachelor of Technology in Fibres and Textiles Processing Technology*
- CGPA 8.23/10.00

INTERNSHIP

BASF, ATCT Lab, Mumbai (India)
Research Intern, *May – July 2014*

- Successfully completed projects based on enzyme applications and softeners – resin finish on textile substrates.

PROJECTS & PUBLICATIONS

Influence of Factors on Clothing Sales and its Future Trend, *November 2016*

- This paper is a study conducted on clothing store sales with data of previous 20 years. Variables such as GDP, GDP per capita, population, marriage rates and their effect on clothing store sales were studied. Regression analysis, ARIMA model for time series analysis with JMP software were used to forecast sales for the next 20 and 50 years.

Comparison Study of Nonwovens (PET, PP, PU), *March 2016 – April 2016*

- This involved a characterization as well as a performance study of meltblown PET, PP, PU and needlepunched PET. Performance study included air permeability, tensile strength, filtration efficiency and porosity.

Optimization and Production of Electro Spun Silk Fibroin Nanofibres, *January 2015 – April 2015*

- A literature review was conducted. Project Financial Analysis was carried out to make it cost effective. The parameters chosen to optimize the procedure included time, temperature, dissolution solvents, purity of silk fibroin obtained after degumming, electrospinning parameters etc. The morphology of the obtained silk fibroin nanofibres were characterized by SEM and FTIR and molecular weight was studied by SDS PAGE.

Report on Applications of Nanotechnology in Medical Textiles, *July 2014 – November 2014*

- This involved an extensive literature survey on various applications in the field of medical textiles including surgery, bio-sensors, imaging etc. It also encompassed the processes to obtain nanoparticles.

TECHNICAL SKILLS

- Worked on instruments like Electrospinning, Air Permeability (FX 3300 LabAir IV) machine, CERTITEST® Model 3160 Automated Filter Tester, Hanatek FT3 Precision Thickness Gauge, Instron Tensile Strength Tester, Elmendorf Tearing Strength Tester, Lyophilizer machine and Freeze dryer, FTIR machine, magnetic printing machine, Spray Tester (water repellent test), Martindale Pilling and Abrasion tester, Spectrophotometers for measuring whiteness index and colour strength, standard microscopes, dyeing and finishing paddle machines, steamers and stenters.

AWARDS

- **Student L.E.A.D. Outstanding Student Organization Officer 2017:**
  President of Textiles Association of Graduate Students (TAGS at NC State University) — *April 2017*

LEADERSHIP

- **President:** Textiles Association of Graduate Students (TAGS at NC State University) — *April 2016 – May 2017*
- **Chair:** Teaching Effectiveness Committee (GSA at NC State University) — *September 2016 – May 2017*

STUDENT ACTIVITES

- **Student Member:** American Association of Textile Chemists and Colorists (AATCC) — *September 2015 - Present*
- **Student Member:** American Society for Testing and Materials (ASTM) — *August 2015 - Present*