Noureddine ABIDI, Ph.D.
Leidigh Endowed Professor, Department of Plant and Soil Science
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Dr. Abidi is Leidigh endowed Professor in the Department of Plant and Soil Science and Managing Director of the Fiber and Biopolymer Research Institute at Texas Tech University. He holds a "Habilitation à Diriger des Recherches" from the University of Haute Alsace in France and a Ph.D. from the University of Montpellier II in France. Dr. Abidi has generated 85 refereed journal publications (+4 in review), 2 books, 15 book chapters, more than 145 conference papers, 1 patent, 2 pending patents, and 6 invention disclosures. Abidi has served as PI or co-PI on funded research grants totaling more than $16,004,051 (amount credited to Abidi: $6,109,519). Abidi developed and teaches two graduate courses: PSS5371 "Structure and Functionalization of Cotton Fibers" and PSS5373 "Biopolymers and Bioproducts". He participates in team-teaching of PSS5370 "U.S. & Global Cotton Fiber-Textiles Industries". He serves as Associate Editor of the J. of Cotton Science. He served as the Secretary of the Division of Cellulose & Renewable Materials/American Chemical Society. He is a member of the American Chemical Society, the Fiber Society, the North American Thermal Society, American Association of Textile Chemists and Colorists, and the American Association for the Advancement of Science. He is/was advisor to 16 Masters, 9 PhDs, and 3 postdoctoral fellows.

PROFESSIONAL EXPERIENCE

- **9/2018-present:** Leidigh Endowed Professor, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.
- **1/2017-present:** Managing Director, Fiber and Biopolymer Research Institute, Texas Tech University, Lubbock, TX.
- **1/2017-8/2018**: Leidigh Endowed Associate Professor, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.
- **1/2016-12/2018:** Alternate Councilor for the Cellulose & Renewable Materials Division, American Chemical Society.
- **1/2016-6/2016:** Fulbright US. Scholar, Ghent University, Belgium.
- **9/2014-9/2015:** Graduate Program Leader, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.
- **9/2014-12/2016:** Associate Director, Fiber and Biopolymer Research Institute, Texas Tech University, Lubbock, TX.
- **9/2012-8/2018:** Associate Professor, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.
- **1/2010-12/2012:** Secretary of the Cellulose & Renewable Materials Division, American Chemical Society.

- **2/2010-12/2013:** Anselme Payen Award Judging Committee of the Division of Cellulose and Renewable Materials, American Chemical Society.
- **9/2009-8/2012:** Assistant Professor, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.
- **9/2006-8/2009:** Research Assistant Professor, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.
- **9/2000-8/2008:** Head of Biopolymer Research, Fiber and Biopolymer Research Institute (formerly International Textile Center), Texas Tech University, Lubbock, TX.
- **12/2007-Present:** Member Graduate Faculty, University of Haute-Alsace, France.
- **9/2000-8/2008:** Head of Finishes/Chemical Research, International Textile Center, Texas Tech University, Lubbock, TX.
- **9/2006-Present:** Member Graduate Faculty, Department of Plant and Soil Science Texas Tech University, Lubbock, TX.
- **9/2000-8/2004:** Adjunct Graduate Faculty, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.
- **9/1999-8/2000:** Research Associate, International Textile Center, Texas Tech University, Lubbock, TX.
- **4/1998-7/1999:** Postdoctoral Research Fellow, Materials and Membrane Processes Laboratory, National School of Chemical Engineering of Montpellier, Montpellier (France).
- **1/1997-3/1998:** Postdoctoral Research Fellow, Laboratory of Physical Chemistry of Condensed Matter, University of Montpellier II, Montpellier (France).
- **10/1993-10/1996:** Ph.D. research activities, Laboratory of Physical Chemistry of Condensed Matter, University of Montpellier II, Montpellier (France).
- **1/1993-7/1993:** Research Associate, Laboratory of RAMAN Spectroscopy, University of Montpellier II, Montpellier (France).

EDUCATION

- **H.D.R Habilitation à Diriger les Recherches** (*accreditation to supervise research)*, French Diploma required to be Full Professor in French Universities). **Engineering Science. 2007.** University of Haute Alsace, Mulhouse (France).
- **Ph.D. Theoretical, Physical, and Analytical Chemistry. 1996.** University of Montpellier II (France).
- **D.E.A. (Diploma of Applied Advanced Studies). Polymers, Interfaces, and Amorphous States. 1993.** University of Montpellier II (France).
- **M.S. Chemistry (Physical Chemistry, Organic Chemistry). 1992.** University of Med I, Faculty of Sciences Oujda (Morocco).
- **B.S. Chemistry. 1991.** University of Med I, Faculty of Sciences Oujda (Morocco).
- **DEUG A (Diploma of Higher Education). Physics and Chemistry. 1990.** University of Med. I, Faculty of Sciences Oujda (Morocco).

LANGUAGES:

- **Arabic:** Native Language
- **French:** Fluent
- **English:** Fluent

AWARDS

1. Texas Tech University Chancellor's Award of Excellence (2002).
2. CASNR Research Award nominee (2011).
3. CASNR Research Award (2012).
4. CASNR Chancellor's Council Distinguished Research Award nominee (2012).
5. Texas Tech University Chancellor's Council Distinguished Research Award (2012).
6. CASNR Barnie E. Rushing, Jr. Faculty Distinguished Research Award nominee (2012).
7. Texas Tech University Outstanding Research Award (2013).
8. Texas Tech University President's Mid-Career Award (2015).
9. The Association for Women in Communications Award, Lubbock Chapter (2015).
10. Fulbright US Scholar Award (2016).
11. Texas Tech University Integrated Scholar Award (2017).
12. Texas Tech University President's Leadership Institute (2016-2017).
13. Leidigh Endowed Associate Professor (2017).

HONORS

1. Finalist for 2017-2018 Class of AAAS-Lemelson Ambassadors

EDITORIAL DUTIES

1. **9/2007-Present:** Associate Editor, J. Cotton Science-Textile Technology Section.
2. **1/2011-Present:** Member of the Editorial Board of the J. Materials and Environmental Science, ISSN: 2020-2508.
3. **9/2014-Present:** Member of the Editorial Board of the Algerian J. Natural Products, ISSN: 2553-0391.
4. **9/2014-Present:** Member of the Editorial Board of the Moroccan J. of Chemistry, ISSN: 2351-812X.
5. **9/2017**-Present: Editor of Cotton and Textile Topics (new journal).

INSTITUTIONAL AND PROFESSIONAL SERVICE

Texas Tech University:

1. Member of the Selection Committee for the Chancellor's Council Distinguished Research Award – STEM. October 2014
2. Member of the Vice President of Research Internal Advisory Committee
3. Reviewer for the Office of Research Services limited submissions.
4. Graduate School Scholarships and Fellowships Reviewer 2014, 2015, 2016
5. Graduate Dean's Representative Monique LeMieux Dissertation 2015
6. Member of the Search Committee for the Assistant Professor Positon in Soft Matter, Department of Chemistry and Biochemistry, Texas Tech University, 2016.

College of Agricultural Sciences and Natural Resources:

1. Member of CASNR International Activities Committee, 2010 to 2013.
2. Chair of the CASNR International Activities Committee, 2013 to 2014.

3. Member of the Search Committee for the Chairperson position for the Department of Plant and Soil Science, 2013.

Department of Plant and Soil Science:

1. Member of the Website Improvement Committee, 2006-2009.
2. Member of the Curriculum and Academic Programs Committee 2006-2009.
3. Chair of the Ad-hoc Committee on Bioproducts 2008-2009.
4. Member of the Strategic Planning Committee 2009.
5. Member of the Search Committee for the Assistant Professor position of Crop Physiology, 2010.
6. Chair of the Search Committee for the Assistant/Associate Professor position of Cell wall biology/biochemistry, 2012.
7. Member of the Search Committee for the Assistant Professor position of Bioproducts, 2012.
8. Member of the Search Committee of the Associate/Full Professor of Genomics, 2014-2015.
9. Chair of the Graduate Research Committee, 2014-Present.
10. Member of the recruitment committee, 2014-Present.
11. Chair of the Mentoring Committee for Dr. Venugopal Mendu.
12. Chair of the Mentoring Committee of Dr. Brendan Kelly.

Membership in Professional Societies:

1. American Association of Textile Chemists and Colorists (AATCC), 2000-Present.
2. American Chemical Society (ACS), 2000-Present.
3. Cellulose and Renewable Materials Division of the American Chemical Society, 2000-Present.
4. The Fiber Society, 2006-Present.
5. North American Thermal Analysis Society (NATAS), 2009-2013.
6. International technical Committee for Textile Care (ICTC), 2000-2010.
7. AATCC RA 43 and the AATCC RA 106 committees, 2000-Present.
8. Secretary of the Cellulose and Renewable Materials Division/American Chemical Society, 12/2010-12/2012.
9. Member of AUTEX (Association of Universities for Textiles), 2016-Present.
10. American Association for the Advancement of Science, 2017-Present.

Symposia organized/moderated:

1. Organizer and Chair of the “Fibers and Biopolymers” symposium during the 37th Annual Meeting of the North American Thermal Analysis Society, Lubbock, TX, September 21- 23, 2009.
2. Chair of the symposium “Deconstructing the cell wall structure” during the 239th American Chemical Society Meeting, March 21-25, 2010, San Francisco, CA.
3. Organizer and Chair of the “Biomaterials/Bioinspired Materials” symposium during the 40th Annual Meeting of the North American Thermal Analysis Society, Orlando, FL, August 12-15, 2012.
4. Chair of the session Biofuels, Algal Bioproducts, Conventional and Emerging Bioproducts, during the Global Biofuels and Bioproducts Summit, San Antonio, TX, November 19-21, 2012.
5. Attend the American Chemical Society Leadership Institute, Dallas January 20-21, 2012.

6. Co-organizer and co-chair of the symposium "Current applications of spectroscopic techniques to investigate biopolymer structure and transformation" during the 247th American Chemical Society Meeting & Exposition, March 16-20, 2014, Dallas, TX. USA
7. Organizer and Chair of the symposium "Cellulose dissolution: new solvents and mechanisms" during the 249th American Chemical Society Meeting and Exposition, March 22-26, 2015, Denver, CO, USA.
8. Member of the Organizing Committee of the International Conference and Exhibition on Biopolymers and Bioplastics, August 10-12, 2015, San Francisco, CA, USA.
9. Chair of a session on Biomaterials during the 12th Renewable Resources and Biorefineries Conference, May 30-31, June 1, 2016, Ghent, Belgium.
10. Member of the Organizing Committee of the International Conference and Exhibition on Biopolymers and Bioplastics, September 12-14, 2016, San Antonio, TX, USA.
11. Co-Chair a session on Biomaterials and Biopolymers during the International Conference and Exhibition on Biopolymers and Bioplastics, September 12-14, 2016, San Antonio, TX, USA.
12. Chair of a session on Bio-based gels & porous materials/biopolymer hydrogels during the 253rd American Chemical Society Meeting and Exposition, April 2-6, 2017, San Francisco, CA.
13. Member of the Scientific Committee of International Conference on Intelligent Textiles and Mass Customization, October 16-18, 2017, Ghent, Belgium.
14. Organizer and Chair of the symposium "Cellulose" during the 73rd Annual Southwest Regional Meeting of the American Chemical Society, October 29-November 1, 2007, Lubbock, TX, USA.
15. Organizer and Chair of the symposium "Analytical Biochemistry" during the 73rd Annual Southwest Regional Meeting of the American Chemical Society, October 29-November 1, 2007, Lubbock, TX, USA.

Proposals Review for Government Agencies

1. **United States Department of Agriculture** – Cooperative State Research, Education & Extension Service.
2. **National Science Foundation Graduate Fellowship Program:** 28 applications were reviewed and ranked (2016).
3. **National Science Foundation Graduate Fellowship Program:** served on the Virtual Panel Review (2016).
4. **University of Leuvan, Research Council KULeuven:** 1 proposal reviewed, March 2017.
5. **Austrian Academy of Science:** 1 proposal reviewed, January 2017.

Articles Review for Journals

• Journal of Cotton Science • American Association of Textile Chemists and Colorists Review • Journal of Applied Polymer Science • Textile Research Journal • Canadian Journal of Chemical Engineering • Applied Surface Science • Carbohydrate Research • Colloids and Surfaces A: Physicochemical and Engineering Aspects • Journal of

Engineered Fibers and Fabrics • Journal of Thermal Analysis and Calorimetry • ACS Applied Materials & Interfaces • Progress in Organic Coatings • Fibers and Polymers • Polymers; Biochemical Engineering Journal • The Journal of Textile Institute • BioResourcses • Journal of Polymer Science Part B: Polymer Physics • Thermochimica Acta • Cellulose.

PATENTS

1. E. Hequet and **N. Abidi**. Cotton Stickiness Evaluation by Means of Multi-Temperature Testing. US 6,520,007 B2 Feb. 18, 2003.
2. **N. Abidi** and Y. Hu. Cotton fiber dissolution and regeneration and 3D printing of cellulose based conductive composites. 15/355,480, filling date November 18, 2016 (Pending).
3. **N. Abidi**, E. Quitevis, V. Thalangamaarachchige, N. Dissanayake. Dissolution of cellulose in ionic liquids. 62/618,274 filling date January 17, 2018 (Pending).

INVENTION DISCLOSURES

1. **N. Abidi** and E. Hequet. Whitefly honeydew detection by means of FT-IR second derivative spectra analysis. TTU D-0414.
2. **N. Abidi** and E. Hequet. Detection and Mapping of Stickiness Contamination in Cotton by Means of Mid-Infrared Spectroscopy. TTU D0456.
3. Tim Dallas, Eric Hequet, **N. Abidi.** Vapor impregnation of functionalized nano-particles into existing textiles. TTU D-0651.
4. Y. Hu, **N. Abidi**. Multistage separation of cellulose nanocrystals. Submitted March 17, 2015, TTU D-1178, the initial review result: patentable.
5. P. Tharaka, **N. Abidi.** CdTe-GSH quantum dots-cellulose/chitin hybrid materials. Submitted June 10, 2015.
6. **N. Abidi**, Y. Hu. 3D printing cotton cellulose based conductive composites. TTU D-1166. Provisional Patent # 62/256,837. Filing date 11/18/2015.

TEACHING

- **"PSS 5371: Structure and Functionalization of Cotton Fibers"** (graduate course, 3 credits, 100%).
  Course description: This course focuses on the structure, characterization, and functionalization of cotton fibers. Parameters and properties that affect the quality of the finished material are discussed. Different techniques used to functionalize the cotton fabric and create "smart textiles" are explained and evaluated.
- **"PSS 5373: Biopolymers and Bioproducts"** (graduate course, 3 credits, 100%).
  Course description: A wide range of naturally occurring polymers (biopolymers) derived from renewable resources are available for material applications. Bioproducts are defined as products that are composed in whole or in significant part of renewable agricultural materials. This course is focused on the chemistry of biopolymers (Cellulose, Lignin, Hemicellulose, Starch, Chitin, Chitosan, Alginates, Soy proteins, plant-based fuels, plant-based polyesters, etc.) and their transformation to bio-based products (Bioethanol, Biodegradable plastics, Surfactants, etc…). A review of the analytical techniques used to characterize biopolymers and bioproducts is also performed.

- **"PSS 5377: Cotton Fiber: Genotype to Phenotype Characterization"** (graduate course, 3 credits, 25%). I teach cotton fiber structure and analytical techniques applied for cotton fiber development research).
  Course description: This course provides a fundamental understanding of the complex relationships that exist between cotton fiber morphogenesis (i.e., the biogenesis of the primary and the secondary cell wall), the genetics of fiber development and fiber quality, fiber macro- and microstructures (such as number of twists, reversals, fiber perimeter, orientation of the fibrils, degree of crystallinity, degree of polymerization, molecular weight and its distribution), and fiber physical and mechanical properties (such as fiber maturity and strength).
- **"PSS 5370: US and Global Cotton Fiber – Textile Industries"** (graduate course, 3 credits, 33%). I teach 2 hours on the Chemical Processing of Cotton Fibers).
  Course description: The purpose of this course is to introduce students to the problems, concepts and solutions integral to modern natural fiber production, development and research by examining factors affecting cotton production, processing, marketing, and utilization as an industrial raw material for textile manufacturing. As the course progresses, the student will be exposed to intensive instruction in a variety of economic, practical, biological and mechanical processes central to the modern cotton and fiber global industries.

Teaching Evaluations (average of last 5 years):

New evaluation form: Fall 2014 - Spring2017

	Number of Courses	Number of Students	Question #1 Mean	Question # 2 Mean	Question #3 Mean
N. Abidi	5	57	4.78	4.75	4.76
PSS			4.56	4.47	4.43
CASNR			4.54	4.45	4.44
TTU			4.69	4.68	4.47

Scale for evaluations: 5 = excellent; 4 = outstanding; 3 = good; 2 = fair; 1 = poor.

Old evaluation form: Fall 2012 - Spring 2014

	Number of Courses	Number of Students	Question #1 Mean	Question # 2 Mean	Question #4 Mean	Question #7 Mean
N. Abidi	4	45	4.39	4.46	4.55	4.35
PSS			4.49	4.50	4.58	4.42
CASNR			4.43	4.43	4.52	4.35
TTU			4.56	4.55	4.68	4.57

Scale for evaluations: 5 = excellent; 4 = outstanding; 3 = good; 2 = fair; 1 = poor

DIRECTION OF GRADUATE STUDENTS

Research Training

1. **Alexander Major**, Research Training (1999), Materials and Membrane Processes Laboratory, National School of Chemical Engineering of Montpellier (France) (Co-chair).
2. **Barthelemy Geraldine**, Research Training M.S. in Chemistry (1999), Materials and Membrane Processes Laboratory, National School of Chemical Engineering of Montpellier (France) (Co-chair).
3. **Bauzon Veronique**, Research Training M.S. in Chemistry (1999), Materials and Membrane Processes Laboratory, National School of Chemical Engineering of Montpellier (France) (Co-chair).
4. **Sowmitri Tarimala**, Ph.D. student Research Training, International Textile Center, Texas Tech University (January 2005 – June 2006). The research work was focused on the functionalization of the cotton fabric surface using new approach based on the sol-gel process. The new functions imparted to the cotton fabric using this process are antibacterial properties and UV protection properties.
5. **Neha Kothari**, Summer Internship, International Textile Center, Texas Tech University (June-August 2006). The research work was focused on cotton fiber structural characterization using Universal Attenuated Total Reflectance Fourier Transform Infrared.
6. **Natalia Castillo,** PSS 5370 Fall 2008. "Halophytic behavior and Salt stress".
7. **Crystal Allen,** PSS 5001 Spring 2009. "Application of FTIR in Forensic Science".
8. **Ashley Ebeling.** PSS 5001 Spring 2009. "Application of SEM in Forensic Science".

M.S.

Completed:

1. **Mohamed Siaj**, Preparation of hybrid organic-inorganic membranes. Materials and Membrane Processes Laboratory, National School of Chemical Engineering of Montpellier (France). Completed in July 1999 (Co-Chair).
2. **Neha Kothari**, Multidisciplinary approach to study cotton fiber development. Department of Plant and Soil Science, Texas Tech University. Completed in October 24, 2007 (Chair). Won the 1st place during the 2009 Beltwide Cotton Conferences Student Competition.
3. **Payam Aminayi**, Imparting super hydro/oleo phobic properties to cotton fabric by means of Molecular Vapor Deposition. Department of Plant and Soil Science, Texas Tech University. Completed in June 20, 2011 (Chair).
4. **Shail Shah**, Cellulose-based aerogels. Department of Plant and Soil Science, Texas Tech University. Completed in June 20, 2011 (Chair). Won the 2nd place during the 10th Annual Graduate Student Research Poster Competition, Texas Tech University.
5. **Sanjit Acharya,** Dyeing properties of cotton fibers with improved reactivity. Department of Plant and Soil Science, Texas Tech University. Completed July 2, 2012. (Chair).

6. **Shanshan Li,** Preparation and characterization of cellulose-based aerogels. Department of Plant and Soil Science, Texas Tech University. Completed March 25, 2013 (Chair).
7. **Zhuanzhuan Ma**, Investigating the impact of drought stress on cotton fiber properties. Department of Plant and Soil Science, Texas Tech University. Completed May 9, 2013 (Chair).
8. **Herath Maheshika,** Cellulose structural organization during different phases of fiber development investigated by X-Rays Diffraction. Department of Plant and Soil Science, Texas Tech University. Completed October 17, 2013 (Chair).
9. **Sumedha Priyadarshani Liyanage,** Chemical and physical characterization of galactomanns extracted from guar seeds. Department of Plant and Soil Science, Texas Tech University Completed October 18, 2013 (Chair). Won the PSS outstanding Master Thesis Award.
10. **Benjamin Murphy,** Crop Science at a Distance, Department of Plant and Soil Science, Texas Tech University. Completed October 10, 2014 (Chair).
11. **Shayamalee Abeysinghe**, Cotton fabric functionalization to impart wrinkle free properties, Department of Plant and Soil Science, Texas Tech University. Completed October 15, 2014 (Chair).
12. **Tanya Jackson,** Organic-Inorganic hybrid aerogels, Department of Plant and Soil Science, Texas Tech University. Completed March 13, 2015 (Chair). Won the 1st Place during the 2014 Texas Tech Annual Biological Sciences Symposium, March 28-29th, 2014.
13. **Mishon Hopkins,** Crop Science at a Distance, Department of Plant and Soil Science, Texas Tech University. Completed November 24, 2015, graduated May 2016 (Chair).
14. **Prakash Parajuli,** FTR microspectroscopy study of compositional changes in biomolecules in biological samples. Crop Science, Department of Plant and Soil Science, Texas Tech University. Completed May 25, 2017 (Chair).
15. **Moss Cameron,** Crop Science at a Distance, Department of Plant and Soil Science, Texas Tech University. Completed June 23, 2017 (Chair).

In progress:
1. **Shaida Rumi,** Crop Science, Department of Plant and Soil Science, Texas Tech University.
2. **Tanjim Hossain,** Crop Science, Department of Plant and Soil Science, Texas Tech University.

Ph.D.

Completed:
1. **Benzina Houda**, Micro-structural and morphological characterization of cotton fibers and implications in elongation and tenacity of the fibers. This work was done in collaboration with the University of Haute Alsace (Mulhouse, France). Completed December 2008 (Co-chair).
2. **Luis Cabrales**, Analytical and spectroscopic approaches to study cellulose macromolecules in developing cotton fibers. Department of Plant and Soil Science, Texas Tech University. Completed October 19, 2011 (Chair).

3. **Rajeev Rajbhandari**, Parameters affecting dye-uptake of cotton fibers. Department of Plant and Soil Science, Texas Tech University. Completed October 11 2013 (Chair).
4. **Tharaka Wansapura Poorna,** Cellulose and chitin based composites: preparation and characterization. Department of Plant and Soil Science, Texas Tech University. Completed May 23, 2017 (Chair).
5. **Sanjit Acharya,** Cellulose dissolution in different solvents. Department of Plant and Soil Science, Texas Tech University. Completed May 24, 2017 (Chair).
6. **Sumedha Priyadarshani Liyanage,** Potential applications of Fourier Transform Infrared microspectroscopy imaging, Department of Plant and Soil Science, Texas Tech University. Completed October 11, 2017 (Chair).

In progress:
1. **Niwanthi Dissanayake,** Department of Plant and Soil Science, Texas Tech University (Chair).
2. **Vikki Martin,** Department of Plant and Soil Science, Texas Tech University (Chair).
3. **Prakash Parajuli,** Department of Plant and Soil Science, Texas Tech University (Chair).

Post-Doctorate Fellows:
1. **Rajeev Rajbhandari**, January 1, 2014 to February 27, 2015.
2. **Yang Hu**, September 1, 2014 to December 1, 2015. Dr. Hu was recruited as a Research Assistant Professor and continues to work in my Lab. I serve as his Faculty Mentor.
3. **Rohan Dassanayake,** February 1, 2015 to August 9, 2018.
4. **Sanjit Acharya,** September 2017 to present.
5. **Sumedha Priyadarshani Liyanage,** January 2018 to present.

Undergraduates:
1. **Sami Moussa**, August 2015 to May 31, 2017.
2. **Maria Hountondji** (from the University of Paris XIII, France), July-September 2015.
3. **Britnie Barrett,** July 2017 to December 2017.

Research Associate (Technician):
1. **Hewa Rajakaruna**, May 16, 2012 to present.
2. **Tanya Jackson**, June 1, 2015 to September 30, 2016

SERVICE ON GRADUATE COMMITTEES
M.S.
Completed:
1. **Farzad Hosseinali**, Investigations on the tensile properties of individual cotton (*Gossypium hirustum L.*) fibers, Department of Plant and Soil Science, Texas Tech University. Completed in June 15, 2012.
2. **Dev Paudel,** Evaluating the potential of new testing methods for cotton (*Gossypium hirustum L.*) breeding, Department of Plant and Soil Science, Texas Tech University. Completed in June 21, 2012.

3. **James Hodgson**, Department of Plant and Soil Science (Distance), Texas Tech University. Completed in June 1, 2012.
4. **Mark Schoonover**, Plant and Soil Science (Distance), Texas Tech University, Completed October in 16, 2012.
5. **Holli Elaine Myers**, Department of Plant and Soil Science (Distance), Texas Tech University. Completed in March 1, 2013.
6. **Henry Hunter**, Plant and Soil Science (Distance), Texas Tech University, Completed in March 27, 2014.
7. **Ruvini Mathangadeera**, Evaluating the impact of fiber processing on cotton fiber tensile properties, Plant and Soil Science, Texas Tech University. Completed in October 16, 2014**.**
8. **Imel Robert,** Agronomic and Economic Analysis of Drought Tolerant Crops for the Texas High Plains, Plant and Soil Science, Texas Tech University. Completed March 27, 2015.
9. **Kolby McCormick,** Improved testing methods for cotton breeders: Calibration of the High Volume Instrument (HVI) elongation measurement, Plant and Soil Science, Texas Tech University. Completed October 09, 2015.
10. **Charles Langdon**, Plant and Soil Science (Distance), Texas Tech University. Completed October 15, 2015.
11. **Suman Lamichhane,** An evaluation of cotton fiber cross-section with image analysis software, Plant and Soil Science, Texas Tech University. Completed January 25, 2016.
12. **Jonathan Shockey,** Harvest-aid efficiency in guar (*Cyamopsis tetragonoloba L.*) in the Texas Plains. Plant and Soil Science, Texas Tech University. Completed October 14, 2016.
13. **Nicholas Gallington,** Plant and Soil Science (Distance), Texas Tech University. Completed March 2, 2017.
14. **Kafil Chowdhury,** Dose to the skin of human leg model from monoenergetic beta sources uniformly distributed on soil with surface roughness. Mechanical Engineering, Texas Tech University. Completed June 29, 2017.
15. **Scott Baker**, Within-plant variability of Upland cotton varieties in multiple environments. Plant and Soil Science, Texas Tech University. Completed March 27, 2018.

In Progress:
1. **Jacob James,** Plant and Soil Science, Texas Tech University.

Ph.D.
Completed:
1. **Chih-yuan Wu,** *Microrehology and Particle Dynamics at Liquid-Liquid Interface*. Department of Chemical Engineering, Texas Tech University. Completed October 31, 2009.
2. **Natalia Castillo,** *A hydroponic approach to evaluate responses to salinity stress in cotton*, Department of Plant and Soil Science, Texas Tech University. Completed in July 25, 2011.

3. **Ruwanti Chandima Wettasinghe,** *Development of castor (Ricinus communis) var. Brigham with ultra low ricin content by analyzing soluble seed proteins*, Department of Plant and Soil Science, Texas Tech University. Completed in June 21, 2012.
4. **Manandhar Roji,** *Impact of cotton fiber maturity on cotton processing*, Department of Plant and Soil Science, Texas Tech University. Completed in October 09, 2013.
5. **Swain Shayla,** *Fabrication of biodegradable biopolymer composites for orthopedic applications*, Department of Industrial Engineering, Texas Tech University. Completed April 4, 2014.
6. **Khalil Azzaoui,** Elaboration et etude de quelques composites a base d'hydroxyapatite phosphorique, distines aux usages industriels et medicaux (in French), University Mohamed Premier, Faculty of Sciences, Department of Chemistry, July 2014.
7. **Kelly Brendan**, *Multivariate analysis of fiber properties and their relation to yarn properties*, Department of Plant and Soil Science, Texas Tech University. Completed October 2014.
8. **Monique LeMieux,** Targeting obesity-related inflammation through nutritional genetic approaches, May 27, 2015 (Dean's Representative).
9. **Addissu Ayele,** Plant and Soil Science, Texas Tech University. Completed October 4, 2017

<u>In Progress</u>:

1. **Vimal Kumar Balasubramanian,** Plant and Soil Science, Texas Tech University.
2. **Maheshika Manike,** Biological Sciences, Texas Tech University.
3. **Chris Delhom,** Plant and Soil Science, Texas Tech University.
4. **Zachary Hinds,** Plant and Soil Science, Texas Tech University.
5. **Joao Paulo Saraiva Morais**, Plant and Soil Science, Texas Tech University.
6. **Most Arifa Sultana,** Plant and Soil Science, Texas Tech University.
7. **Manil Hettiwatte,** Civil, Environmental and Construction Engineering, Texas Tech University
8. **Tharanga Dissanayaka,** Civil, Environmental and Construction Engineering, Texas Tech University

REFEREED PUBLICATIONS (TOTAL CAREER: 85)

**: indicates graduate student, ¥ indicates Postdoc.*

Rank of the journal in the discipline, IF: impact factor (source: 2016 Journal Citation Reports (Clarivate Analytics, 2017)

1. **N. Abidi**, B. Deroide, J.V. Zanchetta, D. Bourret, H. Elmkami, P. Rumori. EPR study of Mn^{2+} doped silica glasses prepared by the sol-gel process. *Physics and Chemistry of Glasses* 37(4) (**1996)** 149-154. *(Rank:100/111, IF 2016:0.599)*
2. H. Elmkami, B. Deroide, J.V. Zanchetta, P. Rumori, **N. Abidi**. Electron Paramagnetic Resonance Study of Mn^{2+} and Cu^{2+} spin probes in $(Ag_2S)_x(GeS_2)_{1-x}$ glasses. *J. of Non-Crystalline Solids* 208 **(1996)** 21-28. *(Rank:4/26, IF 2016:2.124, 5-year IF:1.926)*
3. **N. Abidi**, B. Deroide, J.V. Zanchetta. Water complexed Mn^{2+} as a probe in the ESR study of silica glasses obtained by the sol-gel process. *Nukleonika* 42(2) **(1997)** 505-514. *(Rank: 39/46, IF 2016: 0.76, 5-year IF:0.512)*

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7. **N. Abidi.** Functionalization of cotton fabric surface and derived bioproducts from cellulose. Ghent University, Department of Textiles, Ghent, Belgium. March 4, 2016.
8. **N. Abidi**. Teaching Biopolymers and Bioproducts course for E-TEAM (European Textile Engineering Advanced Master), Department of Textile Engineering, Puraeus University of Applied Sciences, Athens, Greece, March 7-11, 2016.
9. **N. Abidi.** Research Activities at the Biopolymer Research Group at Texas Tech University. Piraeus University of Applied Sciences, Department of Textiles, Piraeus, Athens, Greece, March 10, 2016.
10. I taught a course on *"Chemical Modification of Surfaces"* for the 3rd Year Bachelor Students in Materials Science Ghent University, Ghent, Belgium. May 13, 2016.

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93. **N. Abidi**, L. Cabrales, E. Hequet. Fourier Transform Infrared spectroscopy and X-Rays diffraction investigations of the cellulose structural changes and organization during different phases of cotton fibers development. 243rd American Chemical Society Meeting and Exposition, March 25-29, 2012, San Diego, CA.

94. **N. Abidi**, L. Cabrales. Cellulose deposition in the secondary cell wall of cotton fibers investigated by thermogravimetric analysis. 40th North American Thermal Analysis Society Conference, August 12-15, 2012, Orlando, FL.

95. **N. Abidi**, S. Li. Preparation and characterization of cellulose based aerogels. 40th North American Thermal Analysis Society Conference, August 12-15, 2012, Orlando, FL.

96. **N. Abidi.** Preparation, characterization, and functionalization of porous cellulose materials. Global Biofuels & Bioproducts Summit, November 19-21, 2012 San Antonio, TX.

97. R. Manandhar, E. Hequet, **N. Abidi**, B. Kelly, R. Boman, J. Wanjura. Effect of fiber maturity on fiber length distribution and yarn evenness properties. In: Proc. Beltwide Cotton Conferences, National Cotton Council, January 7-10, 2013, San Antonio, TX.

98. **N. Abidi**, S. Acharya, R. Rajbhandari, E. Hequet. Kinetic of dye adsorption on cationized cotton fabric. In: Proc. Beltwide Cotton Conferences, National Cotton Council, January 7-10, 2013, San Antonio, TX.

99. B. Kelly, E. Hequet, **N. Abidi**, R. Manandhar. Investigation on cotton fiber breakage. In: Proc. Beltwide Cotton Conferences, National Cotton Council, January 7-10, 2013, San Antonio, TX.

100. S. Li, **N. Abidi**, E. Hequet. Preparation, characterization, and functionalization of porous cellulose materials. In: Proc. Beltwide Cotton Conferences, National Cotton Council, January 7-10, 2013, San Antonio, TX.

101. Z. Ma, **N. Abidi**, E. Hequet, J. Chen. Multidisciplinary approach to investigate the effects of drought stress on cotton fiber quality. In: Proc. Beltwide Cotton Conferences, National Cotton Council, January 7-10, 2013, San Antonio, TX.

102. R. Rajbhandari, **N. Abidi**, E. Hequet. Evaluation of Quickspin for yarn Quality and dye uptake assessments. In: Proc. Beltwide Cotton Conferences, National Cotton Council, January 7-10, 2013, San Antonio, TX.

103. **N. Abidi**, M. Manike. Investigations on cellulose deposition and organization during the biogenesis of primary and secondary cell walls in cotton fibers. 245th American Chemical Society National Meeting & Exposition, April 7-11, 2013, New Orleans, LA.

104. Z. Ma, **N. Abidi**, R. Rajbhandari, J. Chen. Effects of drought stress on the development of cellulose in cotton fibers studied by FTIR. 247th American Chemical Society Meeting and Exposition, March 16-20, 2014, Dallas, TX.

105. U. Agarwal, **N. Abidi**, S. Ralph. Cotton fiber development: Raman, IR, and XRD investigations. 247th American Chemical Society Meeting and Exposition, March 16-20, 2014, Dallas, TX.

106. S. Liyanage, **N. Abidi**. Characterization of guar galactomannan using FTIR, TGA, and HPLC techniques. 247th American Chemical Society Meeting and Exposition, March 16-20, 2014, Dallas, TX.

107. T. Jackson, S. Li, **N. Abidi**. Preparation, characterization, and cationization of cellulose aerogels. 247th American Chemical Society Meeting and Exposition, March 16-20, 2014, Dallas, TX.

108. **N. Abidi**. FTIR Microspectroscopy imaging technique and its applications for material characterization. 247th American Chemical Society Meeting and Exposition, March 16-20, 2014, Dallas, TX.

109. G.G. Tamas, T. Jackson, E. Quitevis, **N. Abidi**. Dissolution of cellulose in aryl alkyl imidazolium ionic liquids. 247th American Chemical Society Meeting and Exposition, March 16-20, 2014, Dallas, TX.

110. T. Jackson, S. Li, **N. Abidi**. Cellulose: Abundant biopolymer and precursor for the preparation of advanced biomaterials. 2014 Texas Tech Annual Biological Sciences Symposium, 28-29th March, Lubbock, TX.

111. S. Sumedha, **N. Abidi**, D. Auld. Extraction and characterization of galactomannan from guar seeds. 2014 Texas Tech Annual Biological Sciences Symposium, 28-29th March, Lubbock, TX.

112. S. Sumedha, **N. Abidi**, D. Auld. Galactomanna extracted from guar seeds: Chemistry and thermal stability. Fracturing Impacts and Technologies, September 4-5, 2014, Lubbock, TX.

113. **N. Abidi**, S. Sumedha, E, Hequet. Cellulose deposition and organization investigated by Gel Permeation Chromatography and X-Ray diffraction. . In: Proc. Beltwide Cotton Conferences, National Cotton Council, January 5-7, 2015, San Antonio, TX.

114. S.P. Liyanage, **N. Abidi**. On the combination of NaOH activation and DMAc/LiCl dissolution of cellulose from cotton fibers during different stages of fiber development. 249th American Chemical Society Meeting and Exposition, March 22-26, 2015, Denver, CO.

115. S. Sanjit, **N. Abidi**. Effective dissolution of cellulose for making electrically-responsive films. 249th American Chemical Society Meeting and Exposition, March 22-26, 2015, Denver, CO.

116. P.T. Wansapura, **N. Abidi**, T. Jackson, Y. Hu, E.L. Quitevis. Dissolution, regeneration, and characterization of cellulose and cellulose/chitin in ionic liquid. 249th American Chemical Society Meeting and Exposition, March 22-26, 2015, Denver, CO.

117. E. Gurung, K. Mendoza, G. Thomas, R. Bari, T. Jackson, P.T. Wansapura, M. Green, **N. Abidi**, E.L. Quitevis. Dissolution of cellulose and exfoliation of graphene by aralkylimidazolium based ionic liquids. 249th American Chemical Society Meeting and Exposition, March 22-26, 2015, Denver, CO.

118. P.T. Wansapura, **N. Abidi**. Preparation and characterization of cellulose-chitin hybrid materials. 27th Annual Meeting of the Association for the Advancement of Industrial Crops, October 18-22, 2015 Lubbock, TX.

119. S. Acharya, Y. Hu, **N. Abidi**. Preparation and characterization of cellulose films in n,n-dimethyl acetamide/lithium chloride (DMAc/LiCl): effect of drying method of cellulose and its concentration. 27th Annual Meeting of the Association for the Advancement of Industrial Crops, October 18-22, 2015 Lubbock, TX.

120. Y. Hu, **N. Abidi**. Acetic acid assisted dissolution of raw cotton fiber. 27th Annual Meeting of the Association for the Advancement of Industrial Crops, October 18-22, 2015 Lubbock, TX.

121. R.S. Dasanayake, C. Gunathilake, T. Jackson, M. Jaroniec, **N. Abidi**. CO_2 capture at ambient temperature by aerocellulose-derived activated carbon monoliths. 27th Annual Meeting of the Association for the Advancement of Industrial Crops, October 18-22, 2015 Lubbock, TX.

122. S. Liyanage, **N. Abidi**, E. Rajakaruna. Cell wall organization and molecular characterization of developing cotton fibers in two cotton varieties. 27th Annual Meeting of the Association for the Advancement of Industrial Crops, October 18-22, 2015 Lubbock, TX.

123. R.K. Imel-Visel, **N. Abidi**, R.B. Williams, D.L. Auld. Agronomic and economic analysis of guar (*Cyamopsis tetragonoloba L.*) in comparison to drought tolerant crops adapted to the Texas High Plains. 27th Annual Meeting of the Association for the Advancement of Industrial Crops, October 18-22, 2015 Lubbock, TX.

124. **N. Abidi,** S. Acharya, P. Wansapura, N. Dissanayake, Y. Hu, R. Dassanayake. Cellulose Dissolution: Promising approach for the preparation of composite materials. The Fiber Society 2016 Spring Conference. May 25-26, 2016. Mulhouse, France.

125. **N. Abidi,** P. Kiekens, Functionalization of cotton fabric to impart multifunctional properties, 16th World Textile Conference: AUTEX 2016, 8-10 June, 2016, Ljubljana, Slovenia.

126. **N. Abidi,** S. Acharya, P. Wansapura, N. Dissanayake, Y. Hu, R. Dassanayake. Cellulose dissolution: promising approach for the preparation of composite materials. 3rd International Conference and Exhibition on Biopolymers and Bioplastics, September 12-14, 2016, San Antonio, TX (invited).
127. **N. Abidi,** Y. Hu, S. Acharya, P. Wansapura, N. Dissanayake, R. Dassanayake, S. Moussa. Cotton Cellulose: Perfect Precursor for Bioproducts Development. Symposium – Enabling Fiber Productivity Increases through Multidisciplinary Innovations, ASA CSSA SSSA International Conference, November 6-9, 2016, Phoenix, Arizona (invited).
128. Y. Hu, S. Acharya, **N. Abidi**. Acetic acid as a pre-catalyst to promote cellulose dissolution (poster). 253rd American Chemical Society Meeting and Exposition, April 2-6, 2017, San Francisco, CA.
129. Y. Hu, **N. Abidi.** Different size-unified cellulose nanocrystals obtained via a multistage separation. 253rd American Chemical Society Meeting and Exposition, April 2-6, 2017, San Francisco, CA.
130. S. Acharya, Y. Hu, **N. Abidi**. Insight into mild condition dissolution of high molecular weight cellulose in ionic liquid based solvent system. 253rd American Chemical Society Meeting and Exposition, April 2-6, 2017, San Francisco, CA.
131. P. Wansapura, N. Abidi, R. Dassanayake, A. Hamood, P. Tran. Preparation of cellulose and chitin-CdTe quantum dots films and antibacterial effect on Staphylococcus aureus and Pseudomonas aeruginosa. 253rd American Chemical Society Meeting and Exposition, April 2-6, 2017, San Francisco, CA.
132. S. Liyanage, A. Bouyanfif, L. Ramalingam, N. Moustaid-Moussa, **N. Abidi.** FTIR microspectroscopy imaging reveals changes in adipose tissues and liver induced by high-fat diet. 253rd American Chemical Society Meeting and Exposition, April 2-6, 2017, San Francisco, CA.
133. S. Liyanage, A. Bouyanfif, L. Ramalingam, N. Moustaid-Moussa, **N. Abidi**. FTIR applications to study obesity-associated biochemical changes in adipose and liver tissues. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX.
134. A. Bouyanfif, S. Liyanage, J.E. Hewitt, S.A. Vanapalli, N. Moustaid-Moussa, E. Hequet, **N. Abidi**. FTIR imaging detects diet and genotype-dependent changes in chemical composition in wild type and mutant *C. elegans* strains. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX.
135. P. Parajuli, S. Liyanage, H. Rajakaruna, L. Ramalingam, N. Moustaid-Moussa, **N. Abidi.** Application of FTIR microspectroscopy imaging to study oxidative damage occurring in mouse white adipose tissue. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX.
136. **N. Abidi.** Cellulose in cotton fibers: structural development and transformation to bioproducts. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX.
137. S. Liyanage, **N. Abidi**, E. Rajakaruna. Changes in molecular weight of cellulose and distribution in cotton fibers during development. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX.

138. V. Thalangamaarachchige, N. Dissanayake, E.L. Quitevis, **N. Abidi**. Physicochemical properties approach to understanding cellulose dissolution in ionic liquids. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX.

139. Y. Hu, S. Acharya, **N. Abidi.** Promoting the dissolution of high molecular weight cellulose using low-concentration acetic acid. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX.

140. S. Acharya, Y. Hu, **N. Abidi**. On the dissolution of pre-hydrolyzed high molecular weight cellulose in ionic liquid based solvent. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX.

141. N. Dissanayake, V.D. Thalangamaarachchige, T. Jackson, S. Troxell, Y. Zhang, E. Quitevis, **N. Abidi**. Cellulose dissolution in imidazolium-based ionic liquids: substituent effects. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX.

142. R.S. Dassanayake, C. Gunathilake, A.C. Dassanayake, M. Jaroniec, **N. Abidi**, Aerocellulose-derived activated carbon monoliths and Amidoxime-Functionalized Nanocrystalline Cellulose-Mesoporous Silica Composites for Carbon Dioxide Sorption at Low and Elevated Temperatures. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX.

143. S. Liyanage, A. Bouyanfif, L. Ramalingam, N. Moustaid-Moussa, **N. Abidi**. FTIR microspectroscopy imaging shows obesity-induced biochemical changes in white adipose tissues. 73rd Annual Southwest Regional Meeting American Chemical Society, October 29-November 1, 2017, Lubbock, TX (poster).

144. A. Bouyanfif, S. Liyanage, J.E. Hewitt, S.A. Vanapalli, N. Moustaid-Moussa, E. Hequet, **N. Abidi**. FTIR imaging detects diet and genotype-dependent changes in chemical composition in wild type and mutant *C. elegans* strains. 255th American Chemical Society National Meeting and Exposition, March 18-22, 2018, New Orleans, LA.

145. R.S. Dassanayake, C. Gunathilake, A.C. Dassanayake, M. Jaroniec, **N. Abidi.** 255th American Chemical Society National Meeting and Exposition, March 18-22, 2018, New Orleans, LA.

GRANTS AND AWARDS

Total funded $16,004,051 (amount credited to Abidi: $6,109,519)

01/01/2000–12/31/2000: total funded $95,680 (amount credited to Abidi: $31,893)

1. Co-PI, Investigation of measurement and treatment of stickiness and other cotton contaminant, Texas Food and Fiber Commission, $29,700 (33%).

2. Co-PI, Establish reliable measurement for stickiness and enable improved management of stickiness in cotton fibers, Cotton Incorporated, $95,680 (33%).

3. PI, Development of new products, blends, and fabrics construction which emphasize Texas natural fibers. Texas Food and Fiber Commission, $30,000 (50%).

01/01/2001–12/31/2001: total funded $258,205 (amount credited to Abidi: $126,500)

1. PI, Imparting multifunctional properties to cotton fabrics using plasma technology, Texas Food and Fiber Commission, $100,240 (100%).

2. PI, Development and evaluation of measurements of properties and contaminants for fibers, yarns, and fabrics. Texas Food and Fiber Commission, $52,500 (25%).
3. Co-PI, Establish reliable measurement for stickiness and enable improved management of stickiness in cotton fibers. Cotton Incorporated, $95,885 (40%).

01/01/2002–12/31/2002: total funded $80,076 (amount credited to Abidi: $40,038)

1. Co-PI, Establish reliable measurement for stickiness and enable improved management of stickiness in cotton fibers, Cotton Incorporated, $80,076 (50%).
2. PI, Development and evaluation of measurements of properties and contaminants for fibers, yarns, and fabrics. Texas Food and Fiber Commission, $52,500 (20%).

01/01/2003–12/31/2003: total funded $85,232 (amount credited to Abidi: $78,176)

1. Co-PI, Establish reliable measurement for stickiness and enable improved management of stickiness in cotton fibers, Cotton Incorporated, $35,112 (50%).
2. PI, Development of new products, blends, treatments, and fabric constructions, which emphasize Texas natural fibers, Texas Food and Fiber Commission, $90,000 (90%).
3. Co-PI, Development and evaluation of measurements of properties and contaminants for fibers, yarns, and fabrics, Texas Food and Fiber Commission, $90,000 (20%).

01/01/2004–12/31/2004: total funded $245,224 (amount credited to Abidi: $112,544)

1. Co-PI, Establish reliable measurement for stickiness and enable improved management of stickiness in cotton fibers, Cotton Incorporated, $36,081 (50%).
2. Co-PI, Evaluation of sensing devices for fabric shrinkage and fabric smoothness measurements, Cotton Incorporated, $60,180. (20%.
3. Co-PI, Evaluation of sensing devices for fabric shrinkage and fabric smoothness measurements, Cotton Incorporated, $6,025. 20%.
4. Co-PI, Using fiber elongation to improve genetic screening in cotton breeding programs, USDA/ICRC, $52,938. 60%.

01/01/2005–12/31/2005: total funded $354,472 (amount credited to Abidi: $172.680)

1. Co-PI, Establish reliable measurement for stickiness and enable improved management of stickiness in cotton fibers, Cotton Incorporated, $30,333. 50%.
2. Co-PI, Evaluation of sensing devices for fabric shrinkage and fabric smoothness measurements, Cotton Incorporated, $78,973. 20%.
3. Co-PI, Using fiber elongation to improve genetic screening in cotton breeding programs. USDA/ICRC, $56,435. 60%.
4. PI, Cotton fabric functionalization using plasma and sol-gel technologies. Texas Department of Agriculture/Food and Fiber Research Program, $50,000. 80%.
5. Co-PI, Evaluation of testing methods for cotton breeders and biotechnologists, Texas Department of Agriculture/Food and Fiber Research Program, $20,000. 20%.
6. Co-PI, Acquisition of a cryo ultramicrotome, Texas Department of Agriculture/Food and Fiber Research Program, $40,774. 50%.
7. Co-PI, Evaluation of sensing devices for fabric shrinkage and fabric smoothness measurements, Cotton Incorporated, $87,484. 20%.

01/01/2006–12/31/2006: total funded $2,249,631 (amount credited to Abidi: $224,002)

1. Co-PI, Establish reliable measurement for stickiness and enable improved management of stickiness in cotton fibers, Cotton Incorporated, $31,292. 60%.
2. Co-PI, The International Center of Excellence in Agricultural Genomics & Biotechnology, Emerging Technology Fund, $1,949,000. 3%.
3. Co-PI, ICRC 2006-International Cotton Research Center Program. USDA ICRC, $69,498. 100%.
4. PI, Multidisciplinary approach to study cotton fiber maturity. Texas Department of Agriculture/Food and Fiber Research program, $35,000. 65%.
5. PI, Functionalization of cotton fabric surface. Texas Department of Agriculture/Food and Fiber Research Program, $35,000. 60%.
6. Co-PI, Incorporating fiber elongation in cotton breeding programs. Texas Department of Agriculture/Food and Fiber Research Program, $30,389. 33%.
7. Co-PI, Evaluation of sensing devices for fabric shrinkage and fabric smoothness, Cotton Incorporated, $87,484. 20%.

01/01/2007-12/31/2007: total funded $403,015 (amount credited to Abidi: $133,343)

1. Co-PI, Data mining in cotton fiber quality databases, Cotton Incorporated, $35,232. 20%.
2. Co-PI, Spinning limits of high quality Upland cotton, Cotton Incorporated, $51,782. 30%.
3. Co-PI, Evaluation of sensing devices for fabric shrinkage and fabric smoothness, Cotton Incorporated, $77,957. 20%.
4. Co-PI, Evaluation of testing methods for cotton breeders and biotechnologists with emphasis on cotton fiber maturity, Cotton Incorporated, $100,426. 30%.
5. Co-PI, Investigate non-HVI fiber properties and their relationships with fiber quality, Delta&Pine Land, $19,096. 50%.
6. PI, Imparting antibacterial properties to cotton fabrics through functionalization with cyclodextrins, Texas Department of Agriculture/Food and Fiber Research Program, $70,000. 70%.
7. Co-PI, Incorporating fiber elongation in cotton breeding programs, Texas Department of Agriculture/Food and Fiber Research Program, $30,389. 33%.
8. PI, Multidisciplinary approach to study cotton fiber maturity. Texas Department of Agriculture/Food and Fiber Research Program, $35,000. 34%.
9. Co-PI, Single fiber strength, crimp, and linear density measurements using Favimat, Texas Department of Agriculture/Food and Fiber Research Program, $18,133. 50%.

01/01/2008-12/31/2008: total funded $2,506,332 (amount credited to Abidi: $201,537)

1. Co-PI, Spinning limits of high quality Upland cottons, Cotton Incorporated, $81,782. 30%.
2. Co-PI, Data mining in the cotton fiber quality databases, Cotton Incorporated, $35,313. 20%.
3. Co-PI, Evaluation of testing methods for cotton breeders and biotechnologists with special emphasis on fiber maturity, Cotton Incorporated, $110,708. 30%.
4. Co-PI, The International Center of Excellence in Agricultural Genomics & Biotechnology, Emerging Technology Fund, $97,450. 3%.

5. Co-PI, MRI: Acquisition of a nanocoating system for engineering surfaces, National Science Foundation/Major Research Instrumentation, $275,000. 20%.
6. Co-PI, International Cotton Research Center Program – 2008, USDA ICRC, $34,501. 100%.
7. PI, Understanding and improving moisture management properties of cotton fabric, Cotton Incorporated, $8,050. 70%.
8. PI, Fourier Transform Infrared analysis of acramite on corn leaves. Chemtura Crop Protection, $6,000. 100%.
9. Co-PI, Evaluation of testing methods for cotton breeders and biotechnologists with special emphasis on cotton fiber maturity, Cotton Incorporated, $11,510. 30%.
10. PI, Imparting antibacterial property to cotton fabric through functionalization with cyclodextrins, Texas Department of Agriculture/Food and Fiber Research Program, $35,000. 70%.
11. Co-PI, Incorporating fiber elongation in cotton breeding programs, Texas Department of Agriculture/Food and Fiber Research Program, $30,389. 33%.
12. PI, Multidisciplinary approach to study cotton fiber maturity, Texas Department of Agriculture/Food and Fiber Research Program, $35,000. 34%.
13. Co-PI, Single fiber strength, crimp, and linear density measurements using FAVIMAT, Texas Department of Agriculture/Food and Fiber Research Program, $20,573. 50%.

01/01/2009-12/31/2009: total funded $597,663 (amount credited to Abidi: $245,223)

1. Co-PI, Spinning limits of high quality Upland cottons, Cotton Incorporated, $100,050. 30%.
2. Co-PI, Evaluation of testing methods for cotton breeders and biotechnologists with special emphasis on fiber maturity, Cotton Incorporated, $100,914. 30%.
3. Co-PI, Data mining in the cotton fiber quality databases, Cotton Incorporated, $35,419. 20%.
4. Co-PI, Improving fiber elongation of U.S. germplasm, Cotton Incorporated-State Support Committee, $22,254. 25%.
5. PI, Multidisciplinary approach to study cotton fiber maturity, Texas Department of Agriculture/Food and Fiber Research Program, $29,280. 80%.
6. PI, New approach to impart super-oleophobic /hydrophobic properties for self-cleaning cotton fabrics, Texas Department of Agriculture/Food and Fiber Research Program, $28,180. 80%.
7. PI, A rapid measurement method for studying cotton fibers secondary cell wall development, Cotton Foundation, $8,000. 70%.
8. Co-PI, Determination of individual fibers tensile properties: relationships with bundle strength maturity, length distribution, and fiber breakage, Texas Department of Agriculture/Food and Fiber Research Program, $30,000. 30%.
9. Co-PI, Optimizing the use of the Advanced Fiber Information System, Texas Department of Agriculture/Food and Fiber Research Program, $30,000. 30%.
10. Co-PI, International Cotton Research Center Program, USDA ICRC, $32,386. 100%.
11. Co-PI, Spinning limits of high quality upland cottons, Cotton Incorporated. $110,055. 30%.

12. Co-PI, Evaluation of testing methods for cotton breeders and biotechnologists with special emphasis on cotton fiber maturity, Cotton Incorporated, $100,971. 30%.

01/01/2010-12/31/2010: total funded $1,237,078 (amount credited to Abidi: $760,728)

1. PI, Cellulose-derived bioproducts: a new generation of smart biomaterials, USDA ICRC, $55,238. 80%.
2. Co-PI, Bringing a portion of Texas plains cotton into premium yarn markets, USDA ICRC $51,517. 30%.
3. Co-PI, Evaluating the tensile properties of cotton fibers and their impact on short fiber content, USDA ICRC, $53,944. 30%.
4. PI, Characterization of cotton fiber with improved reactivity, Bayer Crop Science, $758,359. 80%.
5. Co-PI, Development of a micro-spinning protocol to characterize spinning properties of cotton fibers, Bayer Crop Science, $108,469. 10%.
6. PI, Multidisciplinary approach to study cotton fiber maturity, Texas Department of Agriculture/Food and Fiber Research Program, $34,474. 80%.
7. PI, New approach to impart super-oleophobic /hydrophobic properties for self-cleaning cotton fabrics, Texas Department of Agriculture/Food and Fiber Research Program, $35,574. 80%.
8. Co-PI, Determination of individual fibers tensile properties: relationships with bundle strength maturity, length distribution, and fiber breakage, Texas Department of Agriculture/Food and Fiber Research Program, $18,215. 30%.
9. Co-PI, Optimizing the use of the Advanced Fiber Information System, Texas Department of Agriculture/Food and Fiber Research Program, $27,323. 30%.
10. Co-PI, Spinning limits of high quality Upland cottons, Cotton Incorporated. $13,000. 10%.

01/01/2011-12/31/2011: total funded $2,479,220 (amount credited to Abidi: $1,433,276)

1. PI, Improving fiber testing methods for cotton breeders, Cotton Incorporated, $182,488. 30%.
2. PI, Spinning limit of high quality Upland cottons, Cotton Incorporated, $110,400. 30%.
3. Co-PI, Partial funding of purchase of the CottonScope, Plains Cotton Growers Association, $25,000. 50%.
4. Co-PI, Purchase of laboratory instrumentation, Bayer CropScience, $999,695. 44%.
5. PI, Research to enhance the quality and competitiveness of Texas cotton fibers. Texas Department of Agriculture, $180,000. 37%.
6. Co-PI, Supplement: Spinning limits of high quality Upland cottons. Cotton Incorporated, %20,000. 30%.
7. PI, Setting up cell wall biochemistry laboratory and routine analysis of chitin producing fibers. Bayer CropScience, $650,530. 100%.
8. PI, Spectroscopic approach to study cotton fiber maturity. Cotton Incorporated Texas State Support Committee, $35,000. 80%.
9. PI, Analyzing the effect of drought stress on traits contributing to cotton fiber quality. USDA, $20,000. 80%
10. PI, Microspinining protocol-Phase II Dye uptake evaluation. Bayer CropScience, $247,507. 50%.

01/01/2012-12/31/2012: total funded $694,431 (amount credited to Abidi: $180,086.20)

1. Co-PI, Improving fiber testing methods for cotton breeders, Cotton Incorporated, $160,121. 20%.
2. Co-PI, Improving fiber testing methods for cotton breeders, Cotton Incorporated, $160,365. 20%.
3. Co-PI, Improving fiber testing methods for cotton breeders, Cotton Incorporated, $10,000. 20%.
4. PI, Spectroscopic approach to study cotton fiber maturity, Cotton Incorporated-Texas State Support Committee, $31,500. 100%.
5. Co-PI, Validation of the CottonScope, Cotton Incorporated, $50,386. 20%.
6. Co-PI, Validation of the CottonScope, Cotton Incorporated, $50,548. 20%.
7. Co-PI, Effect of within-plant variability on fiber quality and spinning performances. Cotton Incorporated, $106,294, 20%.
8. Co-PI, Effect of within-plant variability on fiber quality and spinning performances. Cotton Incorporated, $105,217, 20%.
9. PI, Analyzing the effect of drought stress on traits contributing to cotton fiber quality, USDA, $20,000. 100%.

01/01/2013- 12/31/2013: total funded $1,253,609 (amount credited to Abidi: $1,016,809)

1. N. Abidi, Spectroscopic approach to study cotton fiber maturity, Cotton Incorporated-Texas State Support Committee, $31,500. 100%.
2. E. Hequet, N. Abidi, Effect of within-plant variability on fiber quality and spinning performances. Cotton Incorporated, $105,501. 20%.
3. E. Hequet, N. Abidi, Improving fiber testing methods for cotton breeders, Cotton Incorporated, $190,499. 20%.
4. N. Abidi, Cell wall startup equipment, Texas Research Incentive Program, $250,000. 100%.
5. N. Abidi, Evaluation of the feasibility to engineer wrinkle resistance as a new trait in cotton fiber, Texas Research Incentive Program, $511,589. 100%.
6. N. Abidi, Cell wall biochemistry, Texas Research Incentive Program, $164,520. 100%.

01/01/2014- 12/31/2014: total funded $1,060,713 (amount credited to Abidi: $394,311)

1. N. Abidi, Spectroscopic approach to study cotton fiber maturity, Cotton Incorporated, $25,000. 100%.
2. E. Hequet, N. Abidi. Effect of within-plant variability on fiber quality and spinning performances. Cotton Incorporated, $111,579, 20%.
3. E. Hequet, N. Abidi, B. Kelly. Improving fiber testing methods for cotton breeders. $160, 254. 20%.
4. D. Ethridge, N. Abidi. Foam Indigo dyeing of cotton yarns: Machine design and process control. WalMart Foundation, $472,564. 5%.
5. N. Abidi, Assessment of dye uptake of transgenic fibers. Texas Research Incentive Program, $172,416. 100%.
6. N. Abidi, Cotton fabric functionalized with PUD. Phase 1: Evaluation of the performance of the treated fabric, Bayer CropScience, $118,900. 100%.

01/01/2015- 12/31/2015: total funded $381,424 (amount credited to Abidi: $200,732)

1. D. Ethridge, N. Abidi, Cochran Program USDA Foreign Agricultural Service, $24,465, 5%.
2. N. Abidi, Fulbright: Program development in biopolymers and bioproducts, Fulbright US Scholar Program, $17,859. 100%.
3. N. Abidi, Cellulose dissolution and regeneration using ionic liquids, TRIP Bayer CropScience. Year 1: $97,100. 100%.
4. E. Hequet, B. Kelly, N. Abidi, Improving tensile properties of cotton, TRIP Bayer CropScience. Year 1: $75,000. 33%.
5. G. Ritchie, E. Hequet, N. Abidi, Improving TTU cotton research infrastructures to position TTU as the Tier One research University. Year 1: $160,000. 33%.
6. N. Abidi, H. Moussa, L. Ramalingam, Developing FTIR imaging for nutrition and obesity research. Obesity Research Cluster, $7,000. 34%.

01/01/2016- 12/31/2016: total funded $586,958 (amount credited to Abidi: $295,487)

1. N. Abidi, Cellulose dissolution and regeneration using ionic liquids, TRIP Bayer CropScience. Year 2: $101,926. 100%.
2. E. Hequet, B. Kelly, N. Abidi, Improving tensile properties of cotton, TRIP Bayer CropScience. Year 2: $95,000. 33%.
3. G. Ritchie, E. Hequet, N. Abidi, Improving TTU cotton research infrastructures to position TTU as the Tier One Research University. Year 2: $180,000. 33%.
4. N. Abidi, Spectroscopic approach to study cotton fiber maturity, Cotton Incorporated, $25,000. 100%.
5. **N. Abidi**, Spectroscopic approach to study cotton fiber maturity, Cotton Incorporated Texas State Support Committee. $25,000 (100%).
6. E. Hequet, B. Kelly, **N. Abidi**. Maturity and standard fineness: determination, calibration, and use, Cotton Incorporated. $160,032 (33%).

01/01/2017 – 12/31/2017: total funded $935,556 (amount credited to Abidi: $237,087)

1. **N. Abidi,** Y. Hu, Developing bioproducts from low maturity cotton and cotton wastes, Cotton Incorporated Texas State Support Committee. $20,000 (50%).
2. D. Ethridge, **N. Abidi,** Foam Indigo dyeing of cotton yarns: Machine design and process control. WalMart Foundation, $474,999 (10%).
3. E. Hequet, B. Kelly, **N. Abidi,** Maturity and standard fineness: determination, calibration, and use, Cotton Incorporated, $160,032 (33%).
4. B. Kelly, **N. Abidi,** Build a yarn quality prediction model from High Volume Instrument (HVI) and Advanced Fiber Information System (AFIS) measurements for implementation into the IMAmt breeding program. Instituto Matogrossense do Algodao. $100,000 (50%).
5. **N. Abidi,** Spectroscopic approach to study cotton fiber maturity, Cotton Incorporated, Texas State Support Committee, $25,000 (100%).
6. B. Kelly, **N. Abidi,** Textile Performance evaluation of selected high plains cotton varieties, Plains Cotton Growers Association, $45,000 (25%).
7. **N. Abidi,** P.W. Jayawickrama, Cotton-derived composite materials for climate resilient transportation infrastructure. $210,525 (5%).

01/01/2018 – 08/29/2018: total funded $477,032 (amount credited to Abidi: $225,061)

1. **N. Abidi,** Spectroscopic approach to study cotton fiber maturity, Cotton Incorporated, Texas State Support Committee, $25,000 (100%).
2. E. Hequet, B. Kelly, **N. Abidi,** Maturity and standard fineness: determination, calibration, and use, Cotton Incorporated, $160,032 (33%).
3. **N. Abidi,** Y. Hu, Developing bioproducts from low maturity cotton and cotton wastes, Cotton Incorporated Texas State Support Committee. $25,000 (50%)
4. B. Kelly, **N. Abidi,** Textile Performance evaluation of selected high plains cotton varieties, Plains Cotton Growers, $45,000 (25%).
5. E. Hequet, **N. Abidi**, Valuation of products and materials for fiber conditioning research. Samuel Jackson, Incorporated. $197,000. (50%).
6. **N. Abidi,** Development of foam Indigo dyeing of cotton yarns-phase 1. Indigo Mill Designs, LLC. $25,000 (100%).

Other funded projects total career: $168,208 (amount credited to Abidi: $144,758)

2000

1. PI, Purchase of Quickwash Plus for accelerated fabric dimensional stability Testing, CH Foundation. $20,000. 100%.

2002

1. PI, Purchase of Elmendorf Tearing Tester, CH Foundation, $16,436. 100%.

2003

1. PI, Purchase of Accelerated Light Stability and Weathering Instrument, CH Foundation, $22,900. 100%.

2004

1. PI, Acquisition of an Universal Strength Tester. CH Foundation, $25,000. 100%.
2. PI, Cotton fabric surface functionalization using sol-gel technology. Texas Tech University/Office of Research Services, $17,272. 34%.

2006

1. PI, Purchase of a Contact Angle Measurement Instrument. CH Foundation, $12,000. 100%.
2. PI, Purchase of an UV-Visible Spectrophotometer. CH Foundation, $19,600. 100%.

2008

1. Co-PI, Nanocoatings for medical applications, textiles, and micro devices. Texas Tech University/Office of Research Services, $35,000. 33%.