

## **CURRICULUM VITAE**

### **Sayantana Sarkar**

School of Plant and Environmental Sciences

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### **Education**

- Currently a Ph.D. candidate with major in plant physiology at School of Plant and Environmental Sciences, Virginia Tech, VA, USA. CGPA – 3.78 / 4.
- Masters of Science with majors Agronomy and crop science from College of Agriculture and Natural resources, University of Wyoming, WY, USA. CGPA – 3.73 / 4.
- Bachelor of Science (Agriculture) with majors in agriculture from Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, INDIA in 2013 with Cumulative Grade Point Average (CGPA) of 7.32 out of 10-point scale (3.49 on 4-point scale).

### **Work and Research Experience**

- Doctoral research: Development of high-throughput phenotyping methods and evaluation of morphological and physiological characteristics of peanut in a sub-humid environment.
- Master's Thesis: Effect of planting methods, harvesting frequency and cultivars on growth, persistence, quality and yield of Birdsfoot trefoil.
- Working as a research assistant in the peanut physiology lab of Dr. Maria Balota, Tidewater agricultural research and extension center, Virginia Tech
- Teaching assistant for PPWS 2004 - Mysterious Mushrooms & Molds (2018) in the School of Plant and Environmental Sciences, Virginia Tech
- Research assistant in the forage agronomy lab of Dr. Anowar Islam, Department of plant science, University of Wyoming.
- Teaching assistant for PLNT 5700 – Forage crop science (2016) in the Department of plant science, University of Wyoming.
- Employed as an Agriculture officer for Bank of India in India from September 2014 to August 2015.
- Six months field and lab work experience along with rural exposure in 'Village Attachment' under the RAWA (Rural Agricultural Work Experience) course during the seventh semester of my undergrad (2012) and I was the team leader for my class.
- Further work experience of six months in lab work during the Experiential Learning module of eighth semester (2013) in my undergrad.

### **Publications**

- Sarkar, S., Cazenave, A.B., Oakes, J., McCall, D., Thomason, W., Abbot, L. and Balota, M., 2020. High-throughput measurement of peanut canopy height using digital surface models. The Plant Phenome Journal, 3(1), p.e20003.
- Sarkar, S. and Jha, P.K., 2020. Is precision agriculture worth it? Yes, may be. Journal of Biotechnology and Crop Science, 9(14), 4-9.

- Sarkar S. and Islam M.A., Effect of Planting Method, Harvesting Frequency, and Cultivars on Yield of Bird's-foot Trefoil, 2017. Field Days Bulletin WAES 2017.
- Sarkar S. and Islam M.A., On-Farm Performance of Bird's-foot Trefoil Cultivars, 2017. Field Days Bulletin WAES 2017.
- Sarkar S. and Islam M.A., Bird's-foot Trefoil Response to Planting Method and Harvesting Frequency, 2016. Field Days Bulletin WAES 2016.
- Sarkar S. and Islam M.A., Response of Bird's-foot Trefoil Cultivars to Producer's Field, 2016. Field Days Bulletin WAES 2016.
- Sarkar S., Mishra D., and Ghadei K., Collective marketing in Purvanchal region of India –A case study of feasibility, 2014. Indian Journal of Crop Ecology.
- Sarkar S., Mishra D., and Ghadei K., Collective Marketing – A hope for the farmers, 2014. Indian Journal of Crop Ecology.
- *Blog*: “Can newer irrigation techniques save water?” in Sustainable, Secure Food Blog (published by ASA and CSSA). The blog has been viewed 814 times and been covered by several farm newsletters and extension websites as well as social media pages of ASA-CSSA-SSSA.

### **Oral and Poster Presentations**

- Oral presentation on ‘High-Throughput estimation of peanut leaf wilting using RGB indices’ in 2020 ASA-CSSA-SSSA International Annual Meeting (Virtual).
- Oral presentation on ‘High-Throughput Techniques to Estimate Leaf Wilting in Peanuts’ in 2020 APRES annual meeting (Virtual).
- Oral presentation on ‘High-Throughput Techniques to Estimate Leaf Area Index and Above Ground Biomass in Peanut (*Arachis hypogaea* L.)’ in 2019 ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX.
- Oral presentation on Use of aerial imagery to derive leaf area index in peanuts’ in 2019 APRES annual meeting, Auburn, AL.
- Oral presentation on 'Use of aerial imagery and digital elevation models for deriving plant height in peanuts' in 2018 ASA & CSSA Annual Meeting, Baltimore, MD.
- Oral presentation on 'Deriving peanut Plant Height from Aerial Imagery and Digital Elevation Models' in 2018 APRES annual meeting, Williamsburg, VA.
- Poster presentation on ‘High-Throughput Phenotyping of peanuts and biomass sorghum using remote sensing and computer vision techniques' in 2018 GIS and Remote Sensing Symposium, Blacksburg, VA.
- Oral presentation on ‘Emphasis on perennial forage crops: a step towards sustainable agriculture’ in the form of an invited talk at International conference on ‘Sustainable Natural Resource Management: from Science to Practice’ (SNRMSP– 2017) at Banaras Hindu University, Varanasi, India.

### **Workshops:**

- Agricultural Drones Workshop (2017) – organized by Airborne and Satellite Remote Sensing and Precision Agriculture Systems communities at the 2017 ASA-CSSA-SSSA International Annual Meeting, Tampa, FL.

- Field Scale Agricultural Remote Sensing: sUAS, Drones, and Beyond (2018) - organized by Michael Cosh, USDA-ARS-Hydrology and Remote Sensing Laboratory at the 2018 ASA-CSSA-CSA International Annual Meeting, Baltimore, MD.
- Communications 101 for Scientists: Relating in 2019 (2019) – organized by Susan Fisk, Public & Science Communications Director, ASA, CSSA, and SSSA at 2019 ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX.
- Graduate student leadership conference (2020) - organized by the ACS graduate student committee at the 2020 ASA-CSSA-SSSA International Annual Meeting (Virtual).

### **Awards:**

- Nominated for AAAS/Science Program for Excellence in Science membership (2020-21) based on annual progress report.
- Reginald and Phyllis Nelson Scholarship (2019-20) – Awarded on the basis of outstanding academic achievement.
- Cyrus McCormick Scholarship (2019-20) - Awarded on the basis of outstanding academic achievement.
- First prize for the poster presentation on ‘High-Throughput Phenotyping of peanuts and biomass sorghum using remote sensing and computer vision techniques’ in 2018 GIS and Remote Sensing Symposium, Blacksburg, VA. Awarded by the Organization of Geographic Information Systems (OGIS) and Remote sensing research, Virginia tech.
- Third prize in the ASA, CSSA, and SSSA Annual Photo Contest 2018 under Tools at work category for the photo titled “Let’s mimic rain”.

### **Position of responsibility:**

- Judge of the C-2 division poster competition (2019 & 2020) as well as for the oral and poster session of the Precision Agriculture Community (2020) in the 2019 and 2020 ASA-CSSA-SSSA International Annual Meetings.
- Moderator of the ‘Panel discussion on leadership ethics’ session; responsibility assigned as a part of the organizing committee for Leadership conference 2020 in the 2020 ASA-CSSA-SSSA International Annual Meeting.
- Elected social media chair for the American Peanut Research and Education Society (APRES) graduate student organization for 2020-21.
- Elected secretary of the departmental graduate student organization for 2017-18.

### **Professional Memberships**

- American Society of Agronomy
- Crop Science Society of America
- Soil Science Society of America
- American Peanut Research and Education Society

### **Personal Information**

Date of birth

October 20<sup>th</sup> 1991

Nationality  
Gender

Indian  
Male