

## **Sushil Kumar Himanshu, Ph.D.**

Assistant Professor

Department of Food, Agriculture, and Bioresources  
School of Environment, Resources, and Development  
Asian Institute of Technology (AIT), Bangkok, Thailand  
Phone: +66-2524-5480 (Off.); +66 97 295 6188 (Mob.)

Email: [sushil-kumar@ait.ac.th](mailto:sushil-kumar@ait.ac.th); [sushilkumarhimanhsu@gmail.com](mailto:sushilkumarhimanhsu@gmail.com)

### **EDUCATION**

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July 2013 – Dec 2017      *Doctor of Philosophy in Water Resources Development & Management*  
*Indian Institute of Technology Roorkee, India*

- Thesis: Evaluation of Satellite-Based Precipitation Estimates for Hydrological Modelling

July 2010 – June 2012      *Master of Technology in Hydrology*  
*Indian Institute of Technology Roorkee, India*

- Dissertation: Hydrological Reappraisal for Vishnugad-Pipalkoti Hydro-Electric Project
- CGPA of 8.15 out of 10.0

July 2006 – June 2010      *Bachelor of Technology in Agricultural Engineering*  
*Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj, India*

- CGPA of 9.6 out of 10.0

### **RESEARCH INTERESTS**

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- Precision Agriculture
- Regenerative Agriculture Technology
- Climate Smart Irrigation Management
- Remote Sensing and GIS Applications in Agriculture
- UAV-based Remote Sensing Applications for Precision Agriculture
- Big Data Analysis and Applications
- Machine Learning Applications in Agriculture
- Hydrologic/Cropping System Modeling
- Development and Evaluation of Irrigation and Soil Health Management Strategies
- Integrated watershed management
- Evaluation of Best Management Practices to Protect Natural Resources

## QUALIFICATIONS

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- Modeling Framework: Arc-SWAT, VIC, DSSAT, DNDC
- *ERDAS Imagine, Arc-GIS, PIX4Dmapper, ENVI*
- Software/Computer language: OriginLab, Sigma Plot, MATLAB, R Programming, Microsoft Office, Linux

## RESEARCH/ TEACHING EXPERIENCE

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- Sep 2018 – present                      ***Post-Doctoral Research Associate (Geospatial Hydrology)***  
***Texas A&M AgriLife Research, Texas A&M University System, Vernon, Texas, USA***
- Evaluation of strategies for enhancing irrigation water-use efficiency and crop water productivity using ground- and UAV-based measurement platforms and modeling
  - Assessment of water requirements and development of irrigation management plans for cotton/guar/grain sorghum production systems
  - Applications of big data and development of decision support tool for efficient irrigation management
  - Evaluation of soil health benefits of cover crops in cotton production systems
  - Collection, processing, and analysis applications of UAVs-derived data for mapping, monitoring and modeling crops
- Dec 2017 – Aug 2018                      ***Research Scientist***  
***National Remote Sensing Center, Indian Space Research Organization, Hyderabad, India***
- Operationalization of national-level hydrological modeling framework for in-season hydrological water balance components at daily/weekly/fortnightly time step using Variable Infiltration Capacity (VIC) hydrologic model. (Under National Hydrology Project)
- Aug 2013 – Nov 2017                      ***Teaching Assistant***  
***Indian Institute of Technology Roorkee, India***
- Assigned to conduct tutorial and practical classes of postgraduate students for subjects:
    - Design of Irrigation Structures and Drainage Works
    - Remote Sensing and GIS Applications in Agriculture
- July 2012 – July 2013                      ***Assistant Professor***  
***Graphic Era University, Dehradun, India***
- Taught the following courses independently (class sizes varied from 60 to 120 students):
    - Water Resources Engineering -I
    - Water Resources Engineering -II
    - Mechanics of Fluid
  - Served as a faculty advisor for 3 undergraduate academic projects
- July 2010 – June 2012                      ***Teaching Assistant***  
***Indian Institute of Technology Roorkee, India***
- Assigned to conduct tutorial classes of postgraduate students for subjects:
    - Hydrologic Elements and Analysis
    - Stochastic Hydrology
  - Review of Hydrological and Power Potential Studies for Vishnugad-Pipalkoti Hydroelectric Project. (Research project sponsored by THDC India Limited, Government of India)

## **AWARDS, DISTINCTIONS AND PROFESSIONAL CERTIFICATIONS**

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- **‘Outstanding Reviewer Award’** by the American Society of Agricultural and Biological Engineers (ASABE) for the year 2019-2020.
- Developed and taught a master’s course **‘Integrated Watershed Management’** in my role as a collaborator in a research project with Osmania University, Hyderabad that was funded by the Government of India under the Scheme for Promotion of Academic and Research Collaboration (SPARC).
- **Guest Editor**, special issue ‘Climate change and Coastal Agriculture’ of ‘The Journal of the Indian Society of Coastal Agricultural Research’.
- **International Scholar**, for research proposal ‘Planning and Development of Climate Resilient Water Sensitive Urban Designs: A Case Study of Hyderabad Metropolitan City’ under ‘Scheme for Promotion of Academic and Research Collaboration (SPARC), Govt. of India’.
- **‘Best Water Resources Student Award-2018’** by Indian Water Resources Society (IWRS) and Indian Institute of Technology Roorkee, India for Ph.D. research work.
- Awarded **‘International Travel Grant** from **‘Science and Engineering Research Board, Government of India’** to present my Ph.D. Research work at EWRI, ASCE conference-2017, Sacramento, USA.
- Awarded **‘Bergen Summer Research School-2016 full scholarship’** to attend the course **‘Modeling the complexities of water, climate and society’** at the **University of Bergen, Norway** under the campaign **‘Water, Climate and Society’**.
- Awarded **‘Foreign Travel Grant’** from **‘Alumni Association, Indian Institute of Technology Roorkee, India’** to present research work at International Conference On Structural Architectural and Civil Engineering, Dubai, UAE.
- **National Eligibility Test (NET)** qualified with specialization ‘Land and Water Management Engineering’.
- **All India Rank-82 in Graduate Aptitude Test for Engineers (GATE-2010).**
- Awarded **‘Indian Council of Agricultural Research (ICAR) National Talent Scholarship’** (B. Tech.) from July 2006 to June 2010 at SHUATS, Allahabad, India.
- **Merit Certificate** (6<sup>th</sup> rank) for an undergraduate course at SHUATS, Allahabad, India.
- Awarded **‘MHRD Scholarship’** from July 2010 to June 2012 (M. Tech.) and July 2013 to December 2018 (Ph. D. Research) at Indian Institute of Technology Roorkee, India.
- **Joint organizing secretary, Cognizance-2011**, The Annual Technical Festival of Indian Institute of Technology Roorkee, India.
- **Councilor and member, Student Affairs Council**, Indian Institute of Technology Roorkee, India (2011-12, 2014-15).
- **Student Representative, Coordinating Committee of Bhawans**, Indian Institute of Technology Roorkee, India (2011-12).
- Reviewed ~50 articles for ~15 journals including the Journal of Hydrology, Advances in Water Resources, Water Resources Management, Agricultural Water Management, Agricultural Systems, Transactions of the ASABE, Precision Agriculture, Science of the Total Environment, Global and Planetary Change, etc.

- **Co-chairman**, Sustainable technologies for intelligent water management (STIWM-2018) conference, Indian Institute of Technology Roorkee, India.
- **Moderator**, Session- Sustainable Irrigation Management, ASABE Annual International Meeting-2019, Boston, MA, United States.
- **Moderator**, Session- Advances in Agrohydrology: Challenges and Opportunities, ASABE Virtual Annual International Meeting-2020.

#### **SUMMER SCHOOLS / INTERNSHIPS /WORKSHOPS**

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- "**Bergen Summer Research School**" under the campaign "**Water, Climate and Society**" at the **University of Bergen, Norway** dated 13-24 June 2016; earned 3 credits in European Credit Transfer System (ECTS).
- Workshop on "**Climate Change Issues and Challenges with Special Emphasis for Hilly Regions**" jointly organized by the Indian Institute of Technology Roorkee, India and Indian Water Resources Society (IWRS).
- Workshop on "**Water Use Efficiency**" jointly organized by the Indian Institute of Technology Roorkee, India and IWRS.
- Workshop on "**Water Governance**" jointly organized by Central Water Commission, Government of India and IWRS.
- National workshop on "**Advance Soft Computing Techniques in Hydrology and its applications**" jointly organized by the National Institute of Hydrology and Indian Association of Hydrologists.
- International workshop on "**Water Quality Research to evaluate the effects of Agricultural Practices utilized in The United States and India**" organized by SHUATS, Allahabad in association with the United States Department of Agriculture.

#### **SOCIETIES/MEMBERSHIPS**

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- Member, "**American Society of Agricultural and Biological Engineers (ASABE)**".
- Life Member, "**Indian Water Resources Society (IWRS)**".
- Fellow Member, "**International Science Congress Association (ISCA)**".
- Affiliate member, "**American Society of Civil Engineers (ASCE)**".
- Associate member (AMIE), "**The institution of Engineers (India)**".
- Life Member, "**International Association of Hydrological Sciences (IAHS)**".

#### **THESIS SUPERVISED**

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- i. Kiran Karki, Application of VIC model for River Basin Management, Indian Institute of Technology Roorkee, India (2019-2020) (M. Tech. Thesis supervised jointly with Dr. Ashish Pandey).

## RESEARCH GRANT

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- i. Ale, S., **Himanshu, S. K.**, Bell, J., Fan, Y., Bordovsky, J. and Gitz III, D. Evaluation of efficient crop-growth-stage-based deficit irrigation strategies for cotton and grain sorghum production in the Texas High Plains. Ogallala Aquifer Program (OAP), USA. US\$ 38,000 (2020-2021).
- ii. Ale, S., DeLaune, P.B. and **Himanshu, S. K.** Evaluation of Soil Health Benefits of Cover Crops in Cotton Production Systems of the Texas Rolling Plains (Renewal 1). Cotton Incorporated, USA. US\$ 20,000 (2020-2021).
- iii. Ale, S., DeLaune, P.B. and **Himanshu, S. K.** Evaluation of Soil Health Benefits of Cover Crops in Cotton Production Systems of the Texas Rolling Plains. Cotton Incorporated, USA. US\$ 20,000 (2019-2020).

## RESEARCH PUBLICATIONS

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([Google Scholar citations](#): 495; h-index: 13; i10-index: 16 as of September 20, 2021)

### I. Refereed Journal Articles

- i. **Himanshu, S. K.**, Fan, Y., Ale, S. and Bordovsky, J. (2021). Simulated Efficient Growth-Stage-Based Deficit Irrigation Strategies for Maximizing Cotton Yield, Crop Water Productivity and Net Returns. *Agricultural Water Management*, 250, 106840. (IF = 4.516)
- ii. Mauget, S., **Himanshu, S. K.**, Goebel, T., Ale, S., Gitz III, D. and Lascano, R. (2021). Soil and Soil Organic Carbon Effects on Simulated Southern High Plains Dryland Cotton Production. *Soil and Tillage Research*, 212, 105040. (IF = 5.374)
- iii. Ale, S., **Himanshu, S. K.**, Mauget, S., Hudson, D., Goebel, T., Liu, B., Baumhardt, R., Bordovsky, J., Brauer, D., Lascano, R. and Gitz III, D. (2021). Potential Dryland Cotton Yield Increases from Management of Selected Soil Properties Associated with Soil Health. *Frontiers in Sustainable Food Systems*. 4:617509.
- iv. Ale, S., Omani, N., **Himanshu, S. K.**, Bordovsky, J. P., Thorp, K. R. and Barnes, E. M. (2020). Determining optimum irrigation termination periods for cotton production in the Texas High Plains. *Transactions of the ASABE*. 63(1), 105-115. (IF = 1.188)
- v. Yadav, B., Gupta, P. K., Patidar, N. and **Himanshu, S. K.** (2020). Ensemble Modelling Framework for Groundwater Level Prediction in Urban Areas of India. *Science of the Total Environment*, 712, 135539. (IF = 7.963)
- vi. **Himanshu, S. K.**, Pandey, A., Yadav, B. and Gupta, A. (2019). Evaluation of Best Management Practices for Sediment and Nutrient Loss Control Using SWAT Model. *Soil and Tillage Research*, 192, 42-58. (IF = 5.374)
- vii. **Himanshu, S. K.**, Ale, S., Bordovsky J. P. and Darapuneni, M. (2019). Evaluation of crop-growth-stage-based deficit irrigation strategies for cotton production in the Southern High Plains. *Agricultural Water Management*, 225, 105782. (IF = 4.516)
- viii. Kumar, A., Mishra, S., Pandey, R., **Himanshu, S. K.** and Singh, S. (2019). Standardized Precipitation Index based Approach to Predict Environmental Flow Condition. *Ecohydrology*, 12: e2127. doi: 10.1002/eco.2127. (IF = 2.843)

- ix. **Himanshu, S. K.**, Pandey, A. and Patil, A. (2018). Hydrologic Evaluation of the TMPA-3B42V7 Precipitation Data Set over an Agricultural Watershed Using the SWAT Model. *Journal of Hydrologic Engineering, ASCE*, 23(4), 05018003. (IF = 2.064)
- x. **Himanshu, S. K.**, Pandey, A. and Yadav, B. (2017). Assessing the Applicability of TMPA-3B42V7 Precipitation Dataset in Wavelet-Support Vector Machine Approach for Suspended Sediment Load Prediction. *Journal of Hydrology*, 550:103–117. (IF = 5.722)
- xi. **Himanshu, S. K.**, Pandey, A. and Shrestha, P. (2017). Application of SWAT in an Indian river basin for modeling runoff, sediment and water balance. *Environmental Earth Sciences*, 76:3: 1-18. (IF = 2.784)
- xii. **Himanshu, S. K.**, Pandey, A. and Yadav, B. (2017). Ensemble Wavelet-Support Vector Machine Approach for Prediction of Suspended Sediment Load Using Hydro-meteorological Data. *Journal of Hydrologic Engineering, ASCE*, 22(7), 05017006. (IF = 2.064)
- xiii. Dhami, B., **Himanshu, S. K.**, Pandey, A. and Gautam, A. K. (2017). Evaluation of the SWAT Model for Water Balance Study of a Mountainous Snowfed River Basin of Nepal. *Environmental Earth Sciences*, 77(1), 21. (IF = 2.784)
- xiv. Pandey, A., **Himanshu, S. K.**, Mishra, S. K. and Singh, V. P. (2016). Physically Based Soil Erosion and Sediment Yield Models Revisited. *CATENA*, 147: 595-620. (IF = 5.198)
- xv. Kumari, P. and **Himanshu S. K.** (2016). Estimation of Design Flood for Rivers of Saurashtra Region Contributing to the Gulf of Khambhat. *Current World Environment*, 11(3): 869-882.
- xvi. **Himanshu, S. K.**, Singh, A. K., Kumar, S. and Kalura P. (2013). Response of Broccoli to Irrigation Scheduling and Methods under Drip, Sprinkler and Surface Irrigation. *International Journal of Engineering and Advanced Technology*. 2(4): 777-782.
- xvii. **Himanshu S. K.**, Kumar S., Kumar D. and Mokhtar A. (2012). Effects of Lateral Spacing and Irrigation Scheduling on Drip Irrigated cabbage (brassica oleracea) in a Semi-Arid Region of India. *Research Journal of Engineering Sciences*, 1(5): 1-6.

## II. Journal Articles under review/preparation

- i. **Himanshu, S. K.**, Ale, S. Bordovsky, J., Kim, J., Samanta, S., Omani, N. and Barnes, E. (2021). Assessing the Impacts of Irrigation Termination Periods on Cotton Productivity under Strategic Deficit Irrigation Regimes. *Scientific Reports-Nature (Minor comments; Revision submitted)*.
- ii. Fan, Y., **Himanshu, S. K.**, Ale, S., DeLaune, P. B., Zhang, T., Park, S. C., Colaizzi, P. D., Evett, S.R. and Baumhardt, R. L. (2021). The synergy between water conservation and economic profitability of adopting alternative irrigation systems for cotton production in the Texas High Plains. *Agricultural Water Management (Minor comments; Revision submitted)*.
- iii. Madolli, M. J., **Himanshu, S. K.**, Patro, E. R. and Michele, C. D. (2021). Past, present and future perspective of seasonal prediction of Indian monsoon rainfall: A review. *International Journal of Climatology (Minor comments; Revision submitted)*.
- iv. **Himanshu, S. K.**, Ale, S., Singh, J., DeLaune, P. and Barnes, E. (2021). Evaluating the Long-term Impacts of the Cover Crops on Soil Health in Cotton Production Systems of the Texas Rolling Plains (*Under Internal Review: to be submitted to Soil & Tillage Research*).

- v. **Himanshu, S. K.**, Samanta, S., Chang, A., Kim, J., Ale, S., Bordovsky, J., Jung, J. and Barnes, E. (2021). A Comparison of UAV-Derived and Manually-Measured Cotton Phenological Dataset under Different Irrigation Water Use Efficiency Field Experiments (*Under Internal Review: to be submitted to Computers and Electronics in Agriculture*).
- vi. **Himanshu, S. K.**, Pandey, A. and Yadav, B. Assessing the Applicability of the SWAT and VIC Hydrologic Models in simulating Runoff and Evapotranspiration over an Agricultural Watershed. (*Under Internal Review: to be submitted to Hydrological Sciences Journal*)
- vii. Fan, Y., **Himanshu, S. K.**, Ale, S., Bordovsky, J and Park, S. C. (2021). Economic risk analysis of crop growth stage-based deficit irrigation strategies: Simulated trends from Texas cotton production. (*Under Preparation*)
- viii. Ale, S., Su, Q., Singh, J., **Himanshu, S. K.**, Fan, Y., Stoker, B. Gonzalec, E., Adams, C., Biggers, K., Kimura, E. and Wall, J. (2021). An Irrigation Decision Support System for Conserving Resources and Optimizing Cotton Production. (*Under Preparation*)

### III. Book Chapter

- i. **Himanshu S.K.**, Pandey A., Dayal D. (2020). Assessment of Multiple Satellite-Based Precipitation Estimates Over Muneru Watershed of India. In: Pandey A., Mishra S., Kansal M., Singh R., Singh V. (eds) *Water Management and Water Governance. Water Science and Technology Library*, vol 96. Springer, Cham. [https://doi.org/10.1007/978-3-030-58051-3\\_5](https://doi.org/10.1007/978-3-030-58051-3_5).
- ii. Gupta, P. K., Yadav, B., Kumar, A. and **Himanshu, S. K.** (2020). Machine learning and artificial intelligence application in constructed wetlands for industrial effluent treatment: advances and challenges in assessment and bioremediation modeling. In: Saxena et al. (Eds.) *Bioremediation for Environmental Sustainability*, Elsevier, Amsterdam, Netherland, <http://doi.org/10.1016/B978-0-12-820524-2.00016-X>.
- iii. Gupta P.K., Goel M., **Himanshu S.K.** (2020) Understanding Hydrocarbon in Subsurface: Biomonitoring and Bioremediation. In: Gupta P.K., Bharagava R.N. (eds) *Fate and Transport of Subsurface Pollutants. Microorganisms for Sustainability*, vol 24. Springer, Singapore. [https://doi.org/10.1007/978-981-15-6564-9\\_1](https://doi.org/10.1007/978-981-15-6564-9_1).
- iv. Pandey, A., Dayal, D., Palmate, S. S., Mishra, S. K., **Himanshu, S. K.** and Pandey, R. P. (2020). Long Term Historic Changes in Temperature and Potential Evapotranspiration over Betwa River Basin. In: Pandey et al. (Eds.). *Climate Impacts on Water Resources in India. Water Science and Technology Library*, vol 95. Springer, Cham. [https://doi.org/10.1007/978-3-030-51427-3\\_23](https://doi.org/10.1007/978-3-030-51427-3_23).
- v. Gupta A., **Himanshu S.K.**, Gupta S., Singh R. (2020) Evaluation of the SWAT Model for Analysing the Water Balance Components for the Upper Sabarmati Basin. In: AlKhaddar et al. (Eds.) *Advances in Water Resources Engineering and Management. Lecture Notes in Civil Engineering*, vol 39. Springer, Singapore, doi: 10.1007/978-981-13-8181-2\_11.
- vi. Gupta S., Gupta A., **Himanshu S.K.**, Singh R. (2020) Analysis of the Extreme Rainfall Events Over Upper Catchment of Sabarmati River Basin in Western India Using Extreme Precipitation Indices. In: AlKhaddar et al. (Eds.) *Advances in Water Resources Engineering and Management. Lecture Notes in Civil Engineering*, vol 39. Springer, Singapore, doi: 10.1007/978-981-13-8181-2\_8.

### IV. Conference Papers (Full length/proceedings papers)

- i. **Himanshu, S. K.**, Ale, S., Bordovsky, J., and Barnes, E. (2019). Assessment of deficit irrigation strategies for cotton production in the Texas High Plains, Beltwide Cotton Conference-2019, New Orleans, LA, USA, January 8-10. Pages 536-542.

- ii. Ale, S., **Himanshu, S. K.**, Omani, N., Bordovsky, J., Thorp, K. and Barnes, E. (2019). Determining ideal irrigation termination dates under deficit irrigation strategies, Beltwide Cotton Conference-2019, New Orleans, LA, USA, January 8-10. Pages 552-558.
- iii. **Himanshu, S. K.**, Pandey, A., and Dayal, D. (2018). Evaluation of Satellite-Based Precipitation Estimates over an Agricultural Watershed of India. In World Environmental and Water Resources Congress 2018: Watershed Management, Irrigation and Drainage, and Water Resources Planning and Management, American Society of Civil Engineers, Minneapolis, Minnesota, USA, June 03-07, page 308-320.
- iv. Dayal, D., Pandey, A., **Himanshu, S. K.** and Palmate, S. S. (2018). Long Term Historic Changes of Precipitation and Aridity Index over an Indian River Basin. In World Environmental and Water Resources Congress 2018: Groundwater, Sustainability, and Hydro-Climate/Climate Change, American Society of Civil Engineers, Minneapolis, Minnesota, USA, June 03-07, page 262-272.
- v. **Himanshu, S. K.**, Pandey, A., and Palmate, S. S. (2015). Derivation of Nash Model Parameters from Geo-morphological Instantaneous Unit Hydrograph for a Himalayan River using ASTER DEM, International Conference on Structural Architectural and Civil Engineering, Dubai, UAE, November 21-22, page 234-239.

**V. Conference/Workshop Papers (Abstracts/Posters/Presentations)**

- i. **Himanshu, S. K.**, Ale, S., Singh, J., DeLaune, P. and Barnes, E. (2021). Evaluation of the Effects of Winter Wheat Cover Crop on Soil Health in Cotton Production Systems of the Texas Rolling Plains. Virtual Beltwide Cotton Conference-2021, January 5-7.
- ii. Ale, S., **Himanshu, S. K.**, Samanta, S., Chang, A., Kim, J., Bordovsky, J., Jung, J. and Barnes, E. (2021). Validation of UAV Estimates of Canopy Height and Boll Count with Manual Measurements for Two Cotton Cultivars. Virtual Beltwide Cotton Conference-2021, January 5-7.
- iii. Fan, Y., **Himanshu, S. K.**, Ale, S., Bordovsky, J. P. and Park, S. C. (2021). Growth Stage-Based Deficit Irrigation Strategies to Improve Profitability of Cotton production in the Southern High Plains of Texas. ASA Southern Regional Branch Virtual Meeting-2021. January 30.
- iv. Fan, Y., **Himanshu, S. K.**, Ale, S., Bordovsky, J. P. and Park, S. C. (2021). Economic Risk Analysis of Growth Stage-Based Deficit Irrigation Strategies: Simulated Trends from Texas Cotton Production. ASA Southern Regional Branch Virtual Meeting-2021. January 30.
- v. **Himanshu, S. K.**, Ale, S., DeLaune, P., Singh, J. and Barnes, E. (2021). Evaluating Soil Health Benefits of Winter Wheat Cover Crop in Cotton Production Systems. ASABE's Annual Virtual International Meeting, USA, July 11-14. (Abstract submitted).
- vi. **Himanshu, S. K.**, Ale, S., Bell, J., Fan, Y. Bordovsky, J. P., Gitz III, D. and Brauer, D. (2021). Evaluation of efficient crop-growth-stage-based deficit irrigation strategies for cotton production in the Texas High Plains. ASABE's Annual Virtual International Meeting, USA, July 11-14. (Abstract submitted).
- vii. Fan, Y., S.K. **Himanshu, S.** Ale, J. Bordovsky, S.C. Park. Long-term economic feasibility of crop growth stage-based deficit irrigation strategies for cotton production in the Southern High Plains of Texas. 2021 UCOWR/NIWR Annual Water Resources Conference (Virtual), June 8-10, 2021. (Abstract submitted).
- viii. Samanta, S., **Himanshu, S. K.**, Chang, A., Zhang, T., Singh, J., Ale, S., DeLaune, P., Jung, J., Morgan, C. S. L. and Barnes, E. (2021). Evaluation of the impacts of tillage and winter cover crops on soil water availability for and yield of cotton using UAV-acquired data. ASABE's Annual Virtual International Meeting, USA, July 11-14. (Abstract submitted).

- ix. Singh, J., Ale, S., DeLaune, P. B., **Himanshu, S. K.**, Barnes, E. (2021). Modeling the impacts of cover crops on soil water availability, soil health and cotton yield in the Texas Rolling Plains. ASABE's Annual Virtual International Meeting, USA, July 11-14. (Abstract submitted).
- x. Singh, J., Ale, S., Kimura, E., **Himanshu, S. K.**, Su, Q. and Adams, C. (2021). Determination of DSSAT-CSM-CROPGRO-Cotton model cultivar coefficients from cotton variety trial data for regional-scale crop yield prediction. ASABE's Annual Virtual International Meeting, USA, July 11-14. (Abstract submitted).
- xi. Su, Q., Ale, S., **Himanshu, S. K.** and Singh, J. (2021). Improving the reliability of monthly and seasonal weather forecasts of the North American Multi-Model Ensemble (NMME) for regional crop modeling. ASABE's Annual Virtual International Meeting, USA, July 11-14. (Abstract submitted).
- xii. Su, Q., Ale, S., Adams, C., Singh, J. and **Himanshu, S. K.** (2021). Comparison of four theoretical crop water stress index models in irrigation scheduling of cotton. ASABE's Annual Virtual International Meeting, USA, July 11-14. (Abstract submitted).
- xiii. Mvuyekure, R. F. S., Ale, S., Shrestha, R., Adams, C. **Himanshu, S. K.**, Boote, K., Trostle, C. and Hoogenboom, G. (2021). Determination of optimal planting dates and assessing climate variability impacts on guar production in the Texas Rolling Plains and High Plains. ASABE's Annual Virtual International Meeting, USA, July 11-14. (Abstract submitted).
- xiv. Ale, S., Su, Q., Singh, J., **Himanshu, S. K.**, Fan, Y., Stoker, B. Gonzalez, E., Adams, C., Biggers, K., Kimura, E. and Wall, J. (2021). An Irrigation Decision Support System for Conserving Resources and Optimizing Cotton Production (idCROP). ASABE's Annual Virtual International Meeting, USA, July 11-14. (Abstract submitted).
- xv. **Himanshu, S. K.**, Samanta, S., Chang, A., Kim, J., Ale, S., Bordovsky, J., Jung, J. and Barnes, E. (2020). A Comparison of UAV-Derived and Manually-Measured Cotton Phenological Dataset Under Different Irrigation Strategies. ASA, CSSA and SSSA International Annual Virtual Meetings, Nov. 9-13.
- xvi. **Himanshu, S. K.**, Ale, S. Bordovsky, J., Kim, J., Samanta, S., Omani, N. and Barnes, E. (2020). Evaluating the Effects of Irrigation Termination on Productivity of Cotton Under Deficit Irrigation Strategies. ASA, CSSA and SSSA International Annual Virtual Meetings, Nov. 9-13.
- xvii. Ale, S., **Himanshu, S. K.**, Mauget, S., Hudson, D., Goebel, T., Liu, B., Baumhardt, R., Bordovsky, J., Brauer, D., Lascano, R. and Gitz III, D. (2020). Simulated Effects of Changes in Selected Soil Physical and Chemical Properties Associated with Soil Health on Dryland Cotton Production. ASA, CSSA and SSSA International Annual Virtual Meetings, Nov. 9-13.
- xviii. **Himanshu, S.K.**, Fan, Y., Ale, S. and Bodovsky, J.P. (2020). Simulated Crop-growth-stage-based Deficit Irrigation Strategies for Cotton for Increasing Water Productivity and Net Returns. Beltwide Cotton Conference-2020, Austin, TX, USA, January 8-10.
- xix. **Himanshu, S.K.**, Samanta, S., Chang, A., Kim, J., Ale, S., Bordovsky J., Jung, J., and Barnes, E. (2020). Comparative Validation of UAV-Collected Cotton Phenological Dataset with Manual Measurements under different Irrigation Treatments. ASABE's Annual Virtual International Meeting, USA, July 13-15.
- xx. **Himanshu, S.K.**, Fan, Y., Ale, S. and Bordovsky, J. (2020). Modeling Water Productivity and Net Returns of Crop-Growth-Stage-Based Deficit Irrigation Strategies for Cotton, ASABE's Annual Virtual International Meeting, USA, July 13-15.
- xxi. Ale, S., **Himanshu, S.K.**, Mauget, S., Hudson, D., Goebel, T.S., Liu, B., Baumhardt, R.L., Bordovsky, J., Brauer, D.K., Lascano, R.J. and Gitz III, D.C. (2020). Potential Dryland Cotton Yield Increases from Management of Selected Soil Physical and Chemical Properties associated with Soil Health. ASABE's Annual Virtual International Meeting, USA, July 13-15.

- xxii. **Himanshu, S.K.**, Ale, S., Bodovsky, J.P. and Darapuneni, M. (2019). Evaluation of deficit irrigation scheduling strategies for cotton to cope with declining water availability in the Southern High Plains. ASABE's Annual International Meeting, Boston, MA, USA, July 7-10.
- xxiii. Ale, S. and **Himanshu, S.K.** (2019). Climate Resilient Water Sensitive Urban Design: Concept and Examples. Workshop on Climate change and Urbanization: Building Resilience in the Urban Water Sector. Osmania University, Hyderabad, India, Dec 16-17.
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