



Ajay Kumar

Ajay Kumar, PE, is the 2021 New Holland Young Researcher for his prolific research advancing thermochemical conversion of biomass and wastes for production of energy, fuels, and products.

Kumar is a professor in the Biosystems and Agricultural Engineering Department at Oklahoma State University in Stillwater. He teaches undergraduate and graduate courses on energy conversion and processing in the biosystems and agricultural engineering department. He also conducts research on developing technology and analysis for producing fuels and electricity from agricultural materials and wastes through thermal conversion processes.

Kumar is a highly productive researcher who has contributed to the development of innovative technologies and processes to solve challenges in converting diverse biomass and wastes into energy and fuels. He employs basic and applied research methodologies to understand thermal degradation properties of diverse feedstocks, apply torrefaction and densification pretreatments for upgrading the feedstocks and develop novel gasification and pyrolysis technologies to convert the feedstocks into energy, fuels and valuable products. His research is sponsored by many federal, state agencies and industry partner including NSF, USDA, South Central Sun Grant Program, and the OSU Research Foundation, Cowboy Technologies.

An 18-year member of ASABE, Kumar has been extensively involved in a number of ASABE

committees as a member and leader. Kumar is currently a member of the Bioprocessing, Engineering Licensure and Engineering and Technology Accreditation committee. He is also a member of Boyd-Scott Graduate research award and the Gale A. Holloway Professional Development award committees. He is also a member and recent leader within the ASABE Association of Agricultural, Biological and Food Engineers of Indian Origin (AABFEIO). He has worked as an associate editor of ASABE journals and was a member of the ASABE Oklahoma section executive board, serving as chair, vice chair of programs, and secretary/treasurer.

Kumar is author or coauthor of 58 peer-reviewed journal articles and 5 book chapters. He has made more than 90 conference presentations. Throughout his career, Kumar has received a number of awards including the 10th Anniversary Best Paper award from Energies. He received the 2018 ASABE Gale A. Holloway Professional Development award and the Rain Bird Concept of the Year award in 2016. He also received an Oklahoma State University Big 12 Faculty Fellowship and a USDA-NIFA Partnership award for mission integration.