Team develops cutting-edge lubricant technologies to improve gas mileage, reduce wear

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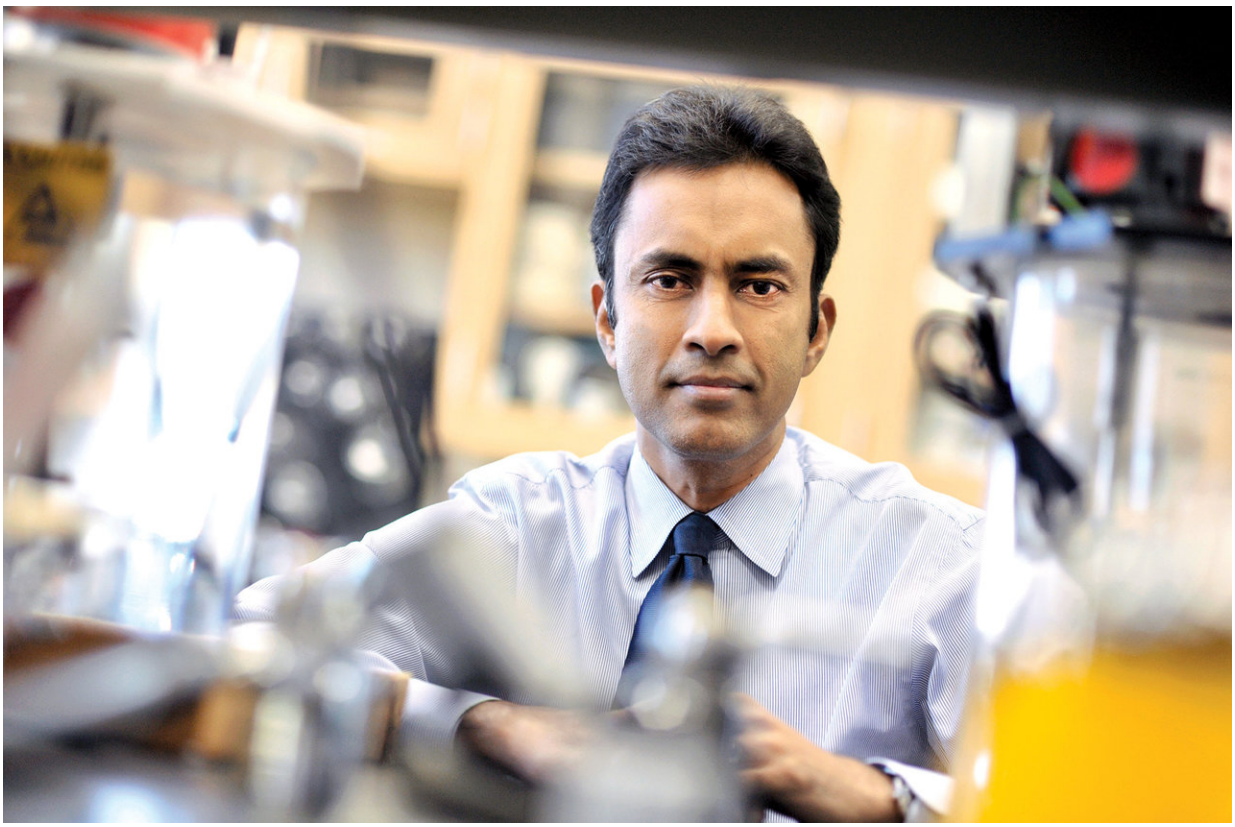


Pranesh Aswath, UTA professor of Materials Science & Engineering and Mechanical & Aerospace Engineering. Credit: UTA

Researchers at the University of Texas at Arlington have developed a

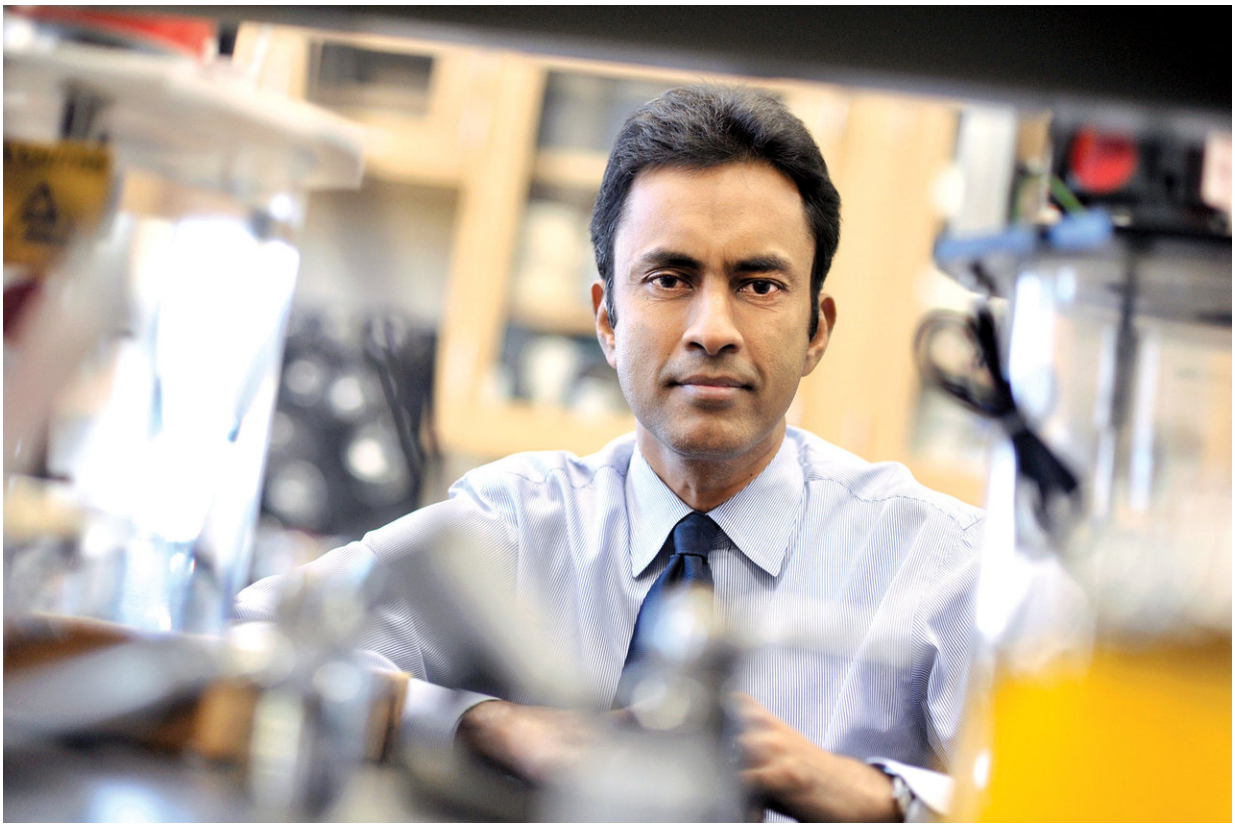
pipeline of new vehicle lubricant technologies that lower greenhouse gas emissions, reduce wear and improve gas mileage, as part of an 18-year collaboration with ESL TEKnologies and its predecessor companies in Dallas.

"This is a really good example of business leveraging knowledge and know-how at the university to develop new products over the long term," said Pranesh Aswath, UTA professor of Materials Science & Engineering and Mechanical & Aerospace Engineering.

"The University also benefits through sustained financing of its research and help accessing federal and state development funds. Another clear positive is the high quality of research experience we can offer to our students on these projects, many of whom have gone on to excellent positions in Chevron and other oil companies," he added.

UTA's Tribology, Lubrication and Coating Laboratory was established in 1999 and is recognized as one of the world's top labs in the field. Up to now, five doctorates and 15 master's degrees have been awarded to students working on the research program, and close to 60 journal articles published associated with the research. More than 10 patents have been issued with two still pending.

"We are working with UTA to bring the third generation of additives to market, based around nanotechnologies, a cutting-edge research field for lubricants," said Cork Jaeger, CEO of ESL TEKnologies and long-term collaborator with UTA.



Pranesh Aswath, UTA professor of Materials Science & Engineering and Mechanical & Aerospace Engineering

"UTA's pipeline of patented technologies forms an important part of the differentiated finished products our customers can expect going forward," he said. "Our work is very directed toward market needs and will be based on proprietary technologies."

ESL TEKnologies recently signed an agreement with Amalie Oil, the largest private and family-owned independent blender of lubricants in North America, to gain exclusive rights to Spectrol branded lubricants, and is expanding its customer base across the United States.

"The new UTA technologies will form part of our offering going

forward and represent a real breakthrough within the market," he added.

ESL TEKnologies and UTA's consortium includes a growing number of industrial groups, federal laboratories and industry leaders who are working to rapidly expand the offerings in this field.

Some 2.3 billion gallons of motor oil are consumed each year in the United States. Improved lubricant technologies would have a direct impact on fuel consumption, leading to increased overall energy efficiency.

This research reflects UTA's focus on global environmental impact within the University's Strategic Plan 2020 Bold Solutions|Global Impact as well as the guiding aspiration of leading in creativity, innovation, and entrepreneurship.

Provided by University of Texas at Arlington