The Department of Mechanical Engineering at Michigan State University invites applications for multiple tenure-system faculty positions in three areas of Mechanical Engineering. All ranks will be considered. Appointments start in August 2016.

In the first area, we seek individuals with a strong background in experimental thermofluids. Preference will be given to those with a demonstrated track record in the development and application of advanced diagnostics, optical or otherwise. This includes multi-variable, multi-dimensional, and volumetric measurement techniques for complex fluid flow and heat transfer applications. Of particular research interest is energy systems, power generation, water-energy nexus, pollution and environmental issues, aeronautic/hydrodynamic systems, geological transport, biological/biomedical flows, and materials processing.

In the second area, we seek individuals with a strong background in advanced manufacturing. Areas of interest include, but are not limited to, additive manufacturing/3D printing, processing of advanced materials with multi-functionality, computer modeling and integration of manufacturing processes, processing under extreme conditions (high temperature and high strain rates), traditional and nontraditional manufacturing processes (e.g. casting, machining, forming, EDM, etc.) and understanding and integration of multi-scale modeling and processes in manufacturing (nano to macro).

In the third area, we seek individuals with a strong background in the development of diagnostics for combustion, plasma, and other extreme/harsh thermofluid conditions, and their application to fundamental and applied studies in automotive and aerospace fields. Areas of particular interest include: sprays, IC engines, lean burn stratified charge concepts, homogeneous charge compression ignition, low-temperature combustion, and others, including after-treatment systems.

The successful candidates will be expected to develop an externally funded interdisciplinary research program of national prominence that includes fundamental research, publications in journals and high quality conferences, and education of graduate students. Candidates must hold an earned doctorate in mechanical engineering or a closely related field, with evidence of research accomplishments, teaching skills, and ability to work effectively with other researchers.

Excellent opportunities exist, within the department, college, and university for collaboration with other faculty. The Mechanical Engineering Department has 35 faculty members with a strong commitment to research, teaching, and service. Research strengths are in the areas of automotive engines and turbomachinery, experimental mechanics and composite structures, experimental and computational fluid mechanics and thermal sciences, dynamic systems and controls, micro/nanosystems, manufacturing, biomechanics and bioengineering, and solid mechanics. The department is home to the Energy and Automotive Research Laboratories and has affiliations with other centers within MSU, including the Institute of Advanced Composites Manufacturing Innovation, Lightweight Innovations for Tomorrow, Composite Vehicle Research Center, the Composite Materials and Structures Center, the Fraunhofer USA Center for Coatings, the High Performance Computing Center, and the Biomedical Imaging Research Center. For additional information about the ME Department, the College of Engineering or MSU, see: http://www.egr.msu.edu/me/

MSU enjoys a park-like campus with outlying research facilities and natural areas. The campus is located in the city of East Lansing, adjacent to the capital city of Lansing. The Lansing metropolitan area has a diverse population of approximately 450,000. Local communities have excellent school systems and place a high value on education. Michigan State University is pro-active in exploring opportunities for employment for dual career couples, both inside and outside the University. Information about MSU’s dual career support can be found at http://miwin.msu.edu/. Information about WorkLife at MSU and the College of Engineering can be found at http://www.egr.msu.edu/WE.

Interested individuals should submit an application for these positions through: http://jobs.msu.edu/ and refer to position #2333. Applicants must submit a detailed resume, statements of research and teaching interests for this position, and the names and contact information for at least three references. The application material should be accompanied by a cover letter stating the position specialty being applied to and a summary of the applicant’s qualifications. Applications will be reviewed on a continuing basis until the position is filled. For full consideration, applications should be received by January 17, 2016. Nominations or questions are welcome by contacting the search committee chair through email at ME-Search@egr.msu.edu

MSU is an affirmative-action, equal opportunity employer. MSU is committed to achieving excellence through a diverse workforce and inclusive culture that encourages all people to reach their full potential. The university actively encourages applications or nominations of women, persons of color, veterans, and persons with disabilities.