The U-M MTRAC Transportation (Michigan Translational Research and Commercialization) program provides resources to support translational U-M projects with transportation applications that have high commercial potential. This support includes research funding for proof-of-concept and late-stage translational activities, with consultation and mentoring from an Oversight Committee with industry and investment experts from outside the University. The MTRAC funding will focus on advanced materials, robotics and autonomy, sensors, electric vehicle drivetrain/propulsion, software/controls/data, and advanced manufacturing processes.

Proposals for U-M MTRAC Transportation projects must be submitted via the website: mtrac-transportation.infoready4.com. Proposals are due by 5:00PM EDT on March 11, 2016.

Those interested in the program are strongly encouraged to contact Jay Ellis to receive assistance and guidance on proposal preparation.

MTRAC TRANSPORTATION PROCESS OVERVIEW
- January 11, 2016 – Call for proposals begins
- March 11, 2016 - Proposals due at 5 PM
- May 5, 2016 – Oversight Committee selects finalists
- June 13, 2016 - Finalists present to Oversight Committee
- June 20, 2016 - Funding decisions made

PROPOSAL REVIEW & EVALUATION
Proposals will be evaluated by the Oversight Committee on the basis of technical feasibility, market need and opportunity, and the potential for commercialization and obtaining additional external support. Each proposal must contain, and will also be evaluated upon, a comprehensive R&D plan towards commercialization with discrete and deliverable development milestones. If a project is approved by the Oversight Committee, team members will be required to sign and submit the U-M MTRAC Transportation Memorandum of Understanding.

ELIGIBILITY
MTRAC was developed to fund translational research of novel, commercially viable technologies. Projects with limited commercial applications are outside the mission of the program and unlikely to be funded. The research must relate directly to applications in transportation (advanced materials, robotics and autonomy, sensors, electric vehicle drivetrain/propulsion, software/controls/data, and advanced manufacturing processes), and the objectives of the project should include an outcome with commercial impact. Other eligibility criteria include the following:
- Each proposal must have a Principle Investigator with efforted appointment at U-M equal to or greater than the requested budgeted amount for his/her effort.
- The College of Engineering in Ann Arbor and UMTRI have contributed base cost sharing to this program to match half of the program cost for their PIs. Awardees from other UM units will be responsible for half of the total project costs.
PROPOSAL
Proposal submissions must include the following information according to the format provided below and should not exceed the stated page limits. **All proposals must adhere to the specified page limits to be considered for this program.** Maintain 0.5 inch page margins throughout document and use no smaller than Arial 10pt. font.

1. **Cover Page (1 page)** – Contains the project title, names of the PI(s), budget amount requested, a one-paragraph summary, and the approval/signature of the department chair of the PI. See attached Cover Page template (included in pages 4-5 of this document).

2. **Project Description (5 pages total)** – Projects will be judged on the following review criteria *(Please use these headings in the body of your proposal and adhere to the page limits)*:

   - **What is the unmet transportation need?** (1-2 paragraphs)
   - **Research Stage/Description of Technology** – The MTRAC program is focused on translational research and designed to accelerate commercialization of promising technologies. Early stage research projects (i.e. hypothesis testing) will not be considered. Describe the technology and its envisioned transportation application. Note that there is not a preference/score for the research stage—the committee needs to understand the stage and technology identified and translational vision for the technologies. (1 page)
   - **R&D Plan** – Is the plan geared towards commercialization? Is the commercialization plan clearly presented? Is the commercialization plan feasible? (1 page)
   - **Quarterly Development Milestones** - Expected specific milestones per quarter and plan for achieving them. These should align with the R&D Plan and Budget. (1/2 page)
   - **Commercialization Potential** – What is the commercial product envisioned by the applicants? Explain the value proposition. Are there competing technologies/products? Who would buy the product (i.e. – likely markets)? What is the earliest likely timeframe that a product resulting from this work could make it to market? What are the perceived barriers to commercialization? (1/2 page)
   - **Impact** – If successfully completed, how would the work outcome address an unmet customer need? How would the outcome transform the transportation industry? (1 paragraph)
   - **Intellectual Property** – Has an invention report been filed with the Office of Tech Transfer (provide the Invention Report number). **THIS IS A MANDATORY REQUIREMENT TO BE ELIGIBLE FOR THIS PROGRAM.** Please contact the Office of Technology Transfer for assistance if you have not already completed an invention report. What is the IP protection strategy for the idea (patent, copyright, trade secret)? (1 paragraph)
   - **Startup Team** – If a startup is being considered, please work with specialists in
Tech Transfer's Venture Center to document the key elements of needs and resources required for success. They can provide help to address questions such as how would you build your team? What positions do you need filled? What’s the priority for filling those positions? What is the timeline? Are there functions that could be filled by partnering or contracting? How would you find candidates? (1 paragraph)

- **Follow-On Funding** - Plan for funding after MTRAC award expires. (i.e. NSF, SBIR/STTR, venture funding, license to existing company, etc.). (1 paragraph)

3. **Budget (1-2 pages)** – Please include a proposed 1-year budget. You have the flexibility to build and justify the budget needed to succeed. We will favorably consider applications where the budget request is $25k-$100k of which 15% departmental/PI costshare is expected for funded projects from Ann Arbor College of Engineering and UMTRI – 50% departmental/PI costshare is expected from other units. Successful achievement of all development milestones in Year 1 may lead to additional funding if the Oversight Committee decides to encourage a follow-on proposal.

   Note: There will be a gateway review after six months to determine whether the full award will be made.

   A budget template is included in this packet. Please use this template and submit with your proposal.

   **Please note the following related to your budget:**

   - PI must have primary and efforted appointment at UM equal to or greater than the requested budgeted amount for his/her effort.
   - Awardees outside the College of Engineering (Ann Arbor) and UMTRI would be responsible for half of the total project costs.
   - Indirect Cost Rate is 7.5% across all expense categories.
   - Allowable budget expenditures include: salary and fringe benefits for project personnel, materials and supplies, equipment, travel and other relevant costs. Budgets should be allocated to the conduct of the R&D plan and achievement of development milestones. Proposals will be partially evaluated on the appropriateness of project budget.
   - The PI’s department chair’s signature is required on the bottom of the budget, for the costshare commitment. Department/Faculty Costshare cannot be “in kind” and must be resources that can be applied directly to expenses for the project. Funds will be required to be placed in a costshare account prior to project initiation.

4. **References/Literature Cited (1 page)**

5. **Bio sketches (2 pages each)**
   Bio sketches of the PI and other key personnel should be attached to this document as supplemental material.
<table>
<thead>
<tr>
<th>Use of Human Subjects</th>
<th>Yes</th>
<th>No</th>
<th>If yes, date of committee approval:</th>
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<tbody>
<tr>
<td>Use of Vertebrate Animals</td>
<td>Yes</td>
<td>No</td>
<td>If yes, date of committee approval:</td>
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<tr>
<td>Recombinant DNA</td>
<td>Yes</td>
<td>No</td>
<td>If yes, date of committee approval:</td>
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<td>Proprietary or Classified Info.</td>
<td>Yes</td>
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<td></td>
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<tr>
<td>Non-Clinical lab studies regulated by the FDA (Quality Assurance Required)</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Hazardous Chemicals or Biologicals</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Submitting PI Signature ________________________________________________________

Printed Name ________________________________________________________________

☐ Amount of costshare provided by the Department and the PI. $__________.

Approval Signature Department Chair ____________________________________________

Printed Name ________________________________________________________________

Department ______________________________

Required costshare contributions depend on home unit. For details see budget sheet or contact Program Director, Jay Ellis (jwellis@umich.edu or 734-615-5388) for further instructions regarding budgets.