NEGO TIA TION AGREEMENT

INSTITUTION: MICHIGAN TECHNOLOGICAL UNIVERSITY
HOUGHTON, MICHIGAN 49931-1295

The Fringe Benefits rates contained herein are for use on grants, contracts and/or other agreements issued or awarded to Michigan Technological University by all Federal Agencies of the United States of America, in accordance with the provisions and cost principles mandated by 2 CFR Part 200. These rates shall be used for forward pricing and billing purposes for the Michigan Technological University's Fiscal Year 2020. This rate agreement supersedes all previous rate agreements/determinations for Fiscal Year 2020.

Section I: RATES - TYPE: PREDETERMINED (PRED)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>RATE</th>
<th>BASE</th>
<th>APPLICABLE TO</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pred</td>
<td>7/1/19</td>
<td>6/30/20</td>
<td>37.8%</td>
<td>(a)</td>
<td>Regular Non-Student Employees</td>
<td>All</td>
</tr>
<tr>
<td>Pred</td>
<td>7/1/19</td>
<td>6/30/20</td>
<td>9.0%</td>
<td>(b)</td>
<td>Graduate Students</td>
<td>All</td>
</tr>
<tr>
<td>Pred</td>
<td>7/1/19</td>
<td>6/30/20</td>
<td>20.5%</td>
<td>(c)</td>
<td>Summer Faculty*</td>
<td>All</td>
</tr>
<tr>
<td>Pred</td>
<td>7/1/19</td>
<td>6/30/20</td>
<td>10.0%</td>
<td>(d)</td>
<td>Temporary Employees</td>
<td>All</td>
</tr>
</tbody>
</table>

DISTRIBUTION BASES

(a) Non-Student Salary and Wages
(b) Graduate Student Salary and Wages
(c) Summer Faculty and Additional Compensation Salary and Wages
(d) Temporary Employee Salary and Wages

*See Section II. Note E.

SECTION II: GENERAL TERMS AND CONDITIONS

A. LIMITATIONS: Use of the rates set forth under Section I is subject to availability of funds and to any other statutory or administrative limitations. The rates are applicable to a given grant, contract or other agreement only to the extent that funds are available and consistent with any and all limitations of cost clauses or provisions, if any, contained therein. Acceptance of any or all of the rates agreed to herein is predicated upon the following conditions: (1) that no costs other than those incurred by the institution were included in this indirect cost pool as finally accepted and that such costs are legal obligations of the institution and allowable under governing cost principles; (2) that the same costs that have been treated as indirect costs are not claimed as direct
costs; (3) that similar types of costs have been accorded consistent accounting treatment; and (4) that the information provided by the institution which was used as a basis for acceptance of the rates agreed to herein, and expressly relied upon by the Government in negotiating and accepting the said rates is not subsequently found to be materially incomplete or inaccurate.

B. ACCOUNTING CHANGES: The rates contained in Section I of this agreement are based on the accounting system in effect at the time this agreement was negotiated. Changes to the method(s) of accounting for costs, which affect the amount of reimbursement resulting from the use of these rates, require prior written approval of the authorized representative of the cognizant agency for indirect costs. Such changes include but are not limited to changes in the charging of a particular type of cost from indirect to direct. Failure to obtain such approval may result in subsequent cost disallowances.

C. PREDETERMINED RATES: The predetermined rates contained in this agreement are not subject to adjustment in accordance with the provisions of 2 CFR Part 200, subject to the limitations contained in Part A of this section.

D. USE BY OTHER FEDERAL AGENCIES: The rates set forth in Section I were negotiated in accordance with and under the authority set forth in 2 CFR Part 200. Accordingly, such rates shall be applied to the extent provided in such regulations to grants, contracts, and other agreements to which 2 CFR Part 200 applies, subject to any limitations in part A of this section. Copies of this document may be provided by either party to other federal agencies to provide such agencies with documentary notice of this agreement and its terms and conditions.

E. SPECIAL REMARKS: The Summer Faculty fringe rate is applicable to regular faculty members with summer appointments and to awarding-agency-approved intra-university consulting labor.

Accepted:

FOR MICHIGAN TECHNOLOGICAL UNIVERSITY:

SUE KERRY
CFO & Senior Vice President for Admin.
& Treasurer of the Board of Trustees

June 27, 2019

FOR THE U.S. GOVERNMENT:

TINGLE.BETTY.JOHNSON.1204289359

BETTY J. TINGLE
Contracting Officer

June 27, 2019

For information concerning this agreement contact:
Betty Tingle
Office of Naval Research
875 N. Randolph Street
Arlington, VA 22203-1995

Phone: (703) 696-7742
E-mail: betty.tingle@navy.mil
INSTITUTION: MICHIGAN TECHNOLOGICAL UNIVERSITY
HOUGHTON, MICHIGAN

The Facilities and Administrative (F&A) rates contained herein are for use on grants, contracts and/or other agreements issued or awarded to Michigan Technological University by all Federal Agencies of the United States of America, in accordance with the provisions and cost principles mandated by 2 CFR Part 200. These rates shall be used for forward pricing and billing purposes for the Michigan Technological University’s Fiscal Years 2017 through 2020. This agreement supersedes all previous rate agreements/determinations for Fiscal Year 2017.

SECTION I: RATES - TYPE: PREDETERMINED (PRED)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>ON CAMPUS</th>
<th>OFF CAMPUS</th>
<th>BASE</th>
<th>APPLICABLE TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Campus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/16</td>
<td>6/30/17</td>
<td>55.0%</td>
<td>26.0%</td>
<td>(a)</td>
<td>Organized Research (1)</td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/17</td>
<td>6/30/20</td>
<td>53.0%</td>
<td>26.0%</td>
<td>(a)</td>
<td>Organized Research (1)</td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/16</td>
<td>6/30/17</td>
<td>71.0%</td>
<td>41.0%</td>
<td>(a)</td>
<td>Organized Research (2)</td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/17</td>
<td>6/30/20</td>
<td>70.2%</td>
<td>43.1%</td>
<td>(a)</td>
<td>Organized Research (2)</td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/16</td>
<td>6/30/17</td>
<td>52.0%</td>
<td>26.0%</td>
<td>(a)</td>
<td>Instruction</td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/17</td>
<td>6/30/20</td>
<td>52.6%</td>
<td>26.0%</td>
<td>(a)</td>
<td>Instruction</td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/16</td>
<td>6/30/17</td>
<td>34.5%</td>
<td>26.0%</td>
<td>(a)</td>
<td>Other Sponsored Activities</td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/17</td>
<td>6/30/20</td>
<td>37.0%</td>
<td>26.0%</td>
<td>(a)</td>
<td>Other Sponsored Activities</td>
</tr>
<tr>
<td>Michigan Tech Research Institute, Ann Arbor, MI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/16</td>
<td>6/30/17</td>
<td>50.75%</td>
<td>26.0%</td>
<td>(a)</td>
<td>Organized Research (1)</td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/17</td>
<td>6/30/20</td>
<td>51.4%</td>
<td>26.0%</td>
<td>(a)</td>
<td>Organized Research (1)</td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/16</td>
<td>6/30/17</td>
<td>84.5%</td>
<td>59.5%</td>
<td>(a)</td>
<td>Organized Research (2)</td>
</tr>
<tr>
<td>PRED</td>
<td>7/1/17</td>
<td>6/30/20</td>
<td>81.7%</td>
<td>56.3%</td>
<td>(a)</td>
<td>Organized Research (2)</td>
</tr>
</tbody>
</table>
DISTRIBUTION BASE

(a) Modified Total Direct Costs (MTDC), as defined in 2 CFR Part 200, consisting of all
direct salaries and wages, applicable fringe benefits, materials and supplies, services,
travel, and subawards up to the first $25,000 of each subaward (regardless of the period
covered by the subawards under the award). MTDC excludes equipment, capital
expenditures, charges for patient care, rental costs, tuition remission, scholarships and
fellowships, participant support costs and the portion of each subaward in excess of
$25,000.

APPLICABLE TO:

(1) Applies to all Non-DOD Instruments, all DOD Grants and to DOD Contracts awarded before
November 30, 1993. See Section II, Paragraph E hereof (capped)

(2) Applies to only DOD Contracts awarded on or after November 30, 1993 in accordance with
and under the authority of DFARS 231.303(1). See Section II, Paragraph E hereof (uncapped).

SECTION II: GENERAL TERMS AND CONDITIONS

A. LIMITATIONS: Use of the rates set forth under Section I is subject to any statutory or
administrative limitations and is applicable to a given grant, contract or other agreement only to
the extent that funds are available and consistent with any and all limitations of cost clauses or
provisions, if any, contained therein. Acceptance of any or all of the rates agreed to herein is
predicated upon all the following conditions: (1) that no costs other than those incurred by the
recipient were included in its indirect cost pool as finally accepted and that all such costs are
legal obligations of the recipient and allowable under governing cost principles; (2) that the same
costs that have been treated as indirect costs are not claimed as direct costs; (3) that similar types
of costs, in like circumstances, have been accorded consistent accounting treatment; (4) that the
information provided by the recipient, which was used as the basis for the acceptance of the rates
agreed to herein and expressly relied upon by the Government in negotiating the said rates, is not
subsequently found to be materially incomplete or inaccurate.

B. ACCOUNTING CHANGES: The rates contained in Section I of this agreement are based on
the accounting system in effect at the time this agreement was negotiated. Changes to the
method(s) of accounting for costs, which affects the amount of reimbursement resulting from the
use of these rates, require the written approval of the authorized representative of the cognizant
negotiating agency for the Government prior to implementation of any such changes. Such
changes include but are not limited to changes in the charging of a particular type of cost from
indirect to direct. Failure to obtain such approval may result in subsequent cost disallowances.

C. PREDETERMINED RATES: The predetermined rates contained in this agreement are not
subject to adjustment in accordance with the provisions of 2 CFR Part 200, subject to the
limitations contained in Part A of this section.

D. USE BY OTHER FEDERAL AGENCIES: The rates set forth in Section I hereof were
negotiated in accordance with and under the authority set forth in 2 CFR Part 200. Accordingly,
such rates shall be applied to the extent provided in such regulations to grants, contracts, and/or
other agreements to which 2 CFR Part 200 is applicable, subject to any limitations in part A of this section. Copies of this document may be provided by either party to other Federal agencies to provide such agencies with documentary notice of this agreement and its terms and conditions.

E. APPLICATION OF INDIRECT COST RATES TO DOD CONTRACTS: In accordance with DFARS 231.303, no limitation (unless waived by the institution) may be placed on the reimbursement of otherwise allowable indirect costs incurred by an institution of higher education under a DOD contract awarded on or after November 30, 1993, unless the same limitation is applied uniformly to all other organizations performing similar work. It has been determined by the Department of Defense that such limitation is not being uniformly applied. Accordingly, the rates cited (2) of Section I, as explained under the title, “APPLICABLE TO” do not reflect the application of the 26% limitation on administrative indirect costs imposed by 2 CFR Part 200, whereas (1) do so.

F. DFARS WAIVER: Signature of this agreement by the authorized representative of Michigan Tech University and the Government acknowledges and affirms the University’s request to waive the prohibition contained in DFARS 231.303(1) and the Government’s exercise of its discretion contained in DFARS 231.303(2) to waive the prohibition in DFARS 231.303(1) with the exception of the MTU Main Campus Research Rate and MTRI Campus Research Rate. The waiver request by Michigan Tech University is made to simplify the University’s overall management of DOD cost reimbursements under DOD contracts.

G. SPECIAL REMARKS: The Government’s agreement with the rates set forth in Section I is not an acceptance of the Michigan Technological University’s accounting practices or methodologies. Any reliance by the Government on cost data or methodologies submitted by Michigan Technological University is on a non-precedence-setting basis and does not imply Government acceptance.

Accepted:

FOR THE MICHIGAN TECHNOLOGICAL UNIVERSITY:

[Signature]

Julie H. Seppala
Vice President for Finance
Treasurer of the Board of Trustees

6-15-2017

FOR THE U.S. GOVERNMENT:

[Signature]

Linda B. Shipp
Contracting Officer

6-16-2017

For information concerning this agreement contact:
Shea Kersey
Office of Naval Research

Phone: (703) 696-2055
E-mail: shea.kersey@navy.mil