2. SPECIAL RECOGNITIONS

2.1 FACULTY FELLOWS

COLLINS, PETER J., Professor of Electrical Engineering, Department of Electrical and Computer Engineering Fellow of Antenna Measurement and Techniques Association

DECKRO, RICHARD F., Distinguished Professor of Operations Research, Department of Operational Sciences Fellow of the Military Operations Research Society

*ELROD, WILLIAM E., Professor Emeritus of Aerospace Engineering, Department of Aeronautics and Astronautics, Fellow of the American Society of Mechanical Engineers International

*FRANKE, MILTON E., Professor Emeritus of Aerospace Engineering, Department of Aeronautics and Astronautics, Fellow of the American Society of Mechanical Engineers

*HENGEHOLD, ROBERT L., Professor Emeritus of Physics, Department of Engineering Physics, Fellow of the American Physical Society

HILL, RAYMOND R., Professor of Operations Research, Department of Operational Sciences; Program Chair, Operations Research Doctoral Program, Fellow of Eastern Connecticut State University

*HOUPIS, CONSTANTINE H., Professor Emeritus of Electrical Engineering, Department of Electrical and Computer Engineering, Professional Engineer (State of Ohio), Fellow of the Institute of Electrical and Electronic Engineers

*MAYBECK, PETER S., Professor Emeritus of Electrical Engineering, Department of Electrical and Computer Engineering, Fellow of the Institute of Electrical and Electronic Engineers

PACHTER, MEIR, Professor of Electrical Engineering, Department of Electrical and Computer Engineering, Fellow of the Institute of Electrical and Electronic Engineers.

PALAZOTTO, ANTHONY N., Distinguished Professor, Aerospace Engineering, Department of Aeronautics and Astronautics, Fellow of the American Institute of Aeronautics and Astronautics, Fellow of the American Academy of Mechanics, Fellow of the American Society of Civil Engineers, Fellow of the Engineering Mechanics Institute

PERRU, GLEN P., Professor of Physics, Department of Engineering Physics, Fellow of the Optical Society of America, Fellow of the Directed Energy Professional Society

PIGNATIELLO, JOSEPH J., Professor of Operations Research, Head, Department of Operational Sciences, Fellow of the Institute of Industrial Engineers, Fellow of the American Society for Quality

POLANKA, MARC D., Professor of Aerospace Engineering, Department of Aeronautics and Astronautics Fellow of the American Society of Mechanical Engineers International

RUGGLES-WRENN, MARINA B., Professor of Aerospace Engineering, Department of Aeronautics and Astronautics, Fellow of the American Society of Mechanical Engineers International

TERZUOLI, ANDREW J., Associate Professor of Electrical Engineering, Department of Electrical and Computer Engineering, Fellow of the Electromagnetics Academy

*TORVIK, PETER J., Professor Emeritus of Aerospace Engineering and Engineering Mechanics, Department of Aeronautics and Astronautics, Fellow of the American Institute of Aeronautics and Astronautics, Life Fellow of the American Society of Mechanical Engineers International, Fellow of the Ohio Academy of Science

WEIR, JEFFERY W., Professor of Operations Research, Associate Department Head, Department of Operational Sciences, Fellow of the Southwestern Ohio Council for Higher Education. America, Fellow of the Directed Energy Professional Society

*Emeritus faculty
2.3 RESEARCH AND TEACHING AWARDS

2.3.1 FACULTY

ANDERSON, JASON R., 2019 Military Officers Association of America Outstanding Military Professor Award

BETTINGER, ROBERT A., Maj, 2019 AU Nominee for Air Force Outstanding Scientist/Engineer – Mid-Career Military Field Grade Officer of the Quarter, Department of Aeronautics & Astronautics, 3rd Quarter, 2019

BEVINS, JAMES E., 2019 Tau Beta Pi Outstanding Thesis Advisor

BOHAN, BRIAN T., AND POLANKA, MARC D., Art in Science Award – 2019 Dayton-Cincinnati Aerospace Symposium (DCASS)

BORGHETTI, BRETT J., Dr., EE/CE Faculty Member of the Year Award

CHANDRAHALIM, HENGKY, IEEE NEMS 2019 Best Paper Finalist

COLLINS, PETER J., 2018 Antenna Measurement Techniques Association (AMTA) Distinguished Achievement Award recipient, Awarded at the 40th Annual AMTA Symposium, 4-9 November 2018, Williamsburg, VA: For Outstanding and Pioneering Contributions to the Practice of Antenna Design, Analysis, and Measurements

DICKENS, JOHN M., Lt Col, 2019 ENS Educator of the Year

ELSHAW, JOHN J., 2019 Dean’s Distinguished Professor Award

FICKUS, MATTHEW C., ENC Instructor of the Quarter, 2019 Spring Quarter


HODSON, DOUGLAS D., Outstanding Achievement Award, the 2019 World Congress in Computer, Science Computer Engineering, and Applied Computing (CSCE 19), July 2019

*HOUPIS, CONSTANTINE H., Professor Emeritus of Electrical Engineering, Department of Electrical and Computer Engineering, Fellow of the Institute of Electrical and Electronic Engineers

JACKSON, JULIE A., IEEE Aerospace and Electronic Systems Society 2019 Fred Nathanson Memorial Radar Award, Apr 2019

JENKINS, PHILLIP R., Capt, 2019 General Omar N. Bradley Research Fellowship in Mathematics

KOMIVES, JEFFREY, Lt Col, MOAA Outstanding Military Professor Award

LANGHALS, BRENT T., 2018-2019 Sigma Iota Epsilon Outstanding Instructor Award

LOPER, ROBERT D., SOCHE Faculty Excellence Award, Nov 2018

LUNDAY, BRIAN J., 2019 Faculty Excellence Award, Southern Ohio Council of Higher Education, 2019 Professor Ezra Kotcher Award, Wright Memorial Chapter, Air Force Association, 2019 Lessons Learned Senior Civilian Professional of the Year, United States Air Force, 2018 Best Reviewer Recognition, Omega: The International Journal of Management Science

MULLINS, BARRY E., Research Advisor for CCR-United States Cyber Command Cyberspace Research Excellence Award (Best Cyber Thesis), L. Stafira, Mar 2019
NAVA, OMAR A., Maj, Col Charles A. Stone Award, Apr 2019; AETC Weather Field Grade Officer of the Year, Nov 2018

NUNNALLY, BEAU A., ENC Instructor of the Quarter, 2019 Winter Quarter

POLANKA, MARC, M.D., AIAA Outstanding Section Award, Very Large Category, 1st Place, 2018
AETC AF Outstanding Scientist/Engineer Educator, 2019, AFIT Innovation Award, Senior Faculty, 2019
SAE Manly Award Winner: Best Paper, 2019, Appointed Chair of the AIAA Associate Fellows Committee
Elected Vice-Chair of the ASME IGTI Heat Transfer Committee

RUTLEDGE, JAMES L., Lt Col, 2019 Air University Outstanding Scientist/Engineer–Senior Military

SCHULDT, STEVEN J., Maj, 2019 AFIT Leslie M. Norton Teaching Excellence Award

SLAGLEY, JEREMY M., 2019 Dean’s Distinguished Professor Awards, ENC Instructor of the Quarter, 2019 Spring Quarter

WHITE, EDWARD D., III, ENC Instructor of the Quarter, 2018 Fall Quarter, ENC Instructor of the Year, 2018-2019

WEIR, JEFFERY D., 2019 Instructor of the Year, Advance Studies in Air Mobility

WRUGGLES-WRENN, M.B.
Art in Science 1st Place Competition Winner, the 44th AIAA Dayton Cincinnati Aerospace Science Symposium, February 2019


*Emeritus Faculty
2.3.2 STUDENTS

ANGELL, EMILY E., Capt, Distinguished Graduate, Department of Systems Engineering and Management

BEEMER, CODY J., Capt, 2019 Dean’s Award for the most exceptional master’s thesis by a graduating student in the Department of Systems Engineering and Management, Thesis title: An Analysis of Built Environment Factors in Residences and the Associated Effects on Mental Health Symptoms of United States Veterans; Distinguished Graduate, Department of Systems Engineering and Management

BERNER, WILLIAM C., Capt, Ivan B. Thompson Award

BEVERIDGE, NATHANAEL R., 2nd Lt, Distinguished Graduate, Department of Operational Sciences

BOLLER, SCOTT A., Best Presentation Award – 2019 Dayton-Cincinnati Aerospace Sciences Symposium (DCASS); Distinguished Graduate, Department of Aeronautics and Astronautics

BRAMBLETT, LAUREN M., 2nd Lt, Dr. James T. Moore Graduate Research Prize (MORS)

CHESTER, DAVID, Capt, Distinguished Graduate Award, Department of Systems Engineering and Management

CHIARATTI, NICOLAS S., Capt, Kittyhawk AOC Academic Research Excellence Award in Electronic Defense

CINTRON, LEWIS A., Capt, 2019 Dean's Award for the most exceptional master's thesis by a graduating student in the Department of Electrical and Computer Engineering, Thesis title: Modeling a Consortium-Based Distributed Ledger Network with Applications for Intelligent Transportation Infrastructure; Distinguished Graduate Award, Department of Electrical and Computer Engineering

CONZONETTA, DAVID, 1st Lt, Distinguished Graduate Award, Department of Systems and Engineering Management

CROUCH, TARA E., Capt, Best Thesis in Fluid Mechanics, Title: Direct Numerical Simulation of Roughness Induced Hypersonic Boundary Layer Transition on a Seven Degree Half-Angle Cone, Department of Aeronautics and Astronautics

DALLMAN, WILLIAM, Capt, Louis F. Polk Award; Distinguished Graduate Award, Department of Electrical and Computer Engineering

DAVIS, RANDALL, Capt, Distinguished Graduate, Department of Operational Sciences


EGNER, BRYAN V., 2nd Lt, Advanced Technical Intelligence Association (ATIA) Student Award; American Nuclear Society Thesis Award

ELLIS, ASHLEE N., Capt, Lt Edwin E. Aldrin Sr. Award

ENOS, TREVOR A., 1st Lt, Project Management Institute Thesis Award

EVERETT, NICHOLAS D., Capt, Kittyhawk AOC Academic Research Excellence Award in Information Superiority

GAHAN, KENNETH C., Capt, 2019 Dean’s Award for the most exceptional master’s thesis by a graduating student in the Dept of Aeronautics and Astronautics, Thesis title: Multi-Path Automatic Ground Collision Avoidance System for Performance Limited Aircraft with Flight Tests: Project Have MEDUSA; Distinguished Graduate, Department of Aeronautics and Astronautics

GANITANO, CRAIG S., Capt, Distinguished Graduate Award, Department of Electrical and Computer Engineering

GEORGE, BRANDON, Capt, Distinguished Graduate, Department of Aeronautics and Astronautics

HARKINS, MEGAN L., Maj, Art in Science: 1st Place Competition Winner: 44th AIAA Dayton-Cincinnati Aerospace Science Symposium, February 2019

HARRELL, WILLIAM L., Maj, Field Grade Officer of the Year

HARRIS, KAREN Y., MSGt, Non-Commissioned Officer of the Year; Secretary James G. Roche Award

HINES, PARKER A., 2nd Lt, Dr. Anthony D’Angelo Student Leadership Award

HORNBERGER, ZACHARY T., 2019 Dean’s Award for the most exceptional master’s thesis by a graduating student in the Department of Operational Sciences, Thesis title: Search and Rescue Operations Forecasting and Optimization

JACKSON, SUNDERLIN, 2nd Lt, Distinguished Graduate, Department of Aeronautics and Astronautics

JENKINS, PHILLIP R., Capt, Company Grade Office of the Year (PhD)

JORDAN, RAMOANE E., Capt, George K. Dimitroff Award

KEANE, MICHAEL, Capt, 2019 Best Technical Presentation in Materials Science – 44th Dayton-Cincinnati Aerospace Sciences Symposium (DCASS), March 2019

LABEDZ, THEODORE J., Capt, EN Student Company Grade Office of the Year (Master’s); Society of American Military Engineers (SAME) Award

LANGHALS, BRENT T., Dr., SIE Instructor of the Year

LEDWITH, MATTHEW C., Distinguished Graduate, Department of Operational Sciences

LEE, TAYLOR, 1st Lt, Navigation Research Excellence Award

MARKMAN, MATTHEW R., Capt, International Cost Estimating and Analysis Association Thesis Award

McREYNOLDS, BRIAN J., Maj, Best Light-Based Thesis

MONTEIRO, LUCIANA M., Capt, International Student of the Year; Jerome G. Peppers Jr. Outstanding Student Award; Air University International Student Badge (Brazil)

MARKMAN, MATTHEW R., Capt, International Cost Estimating and Analysis Association Thesis Award

McREYNOLDS, BRIAN J., Maj, Best Light-Based Thesis

MONTEIRO, LUCIANA M., Capt, International Student of the Year; Jerome G. Peppers Jr. Outstanding Student Award; Air University International Student Badge (Brazil)

NUNDU, AILEEN, Capt, Air University International Student Badge (Australia)

PETER, TROY, 2nd Lt, Distinguished Graduate, Department of Operational Sciences

QUARTERMONT, NICOLAS J., Capt, Tau Beta Pi Thesis Award; Mervin E. Gross Award (AFIT Student of the Year); Distinguished Graduate, Department of Engineering Physics

RATHSACK, TYLER C., Art in Science Award – 2019 Dayton-Cincinnati Aerospace Sciences Symposium, (DCASS)

SAUNDERS, RYAN, 2nd Lt, AIAA Graduate Student Award for Service Excellence
SCHMITT, COURTNEY A., 2nd Lt, Distinguished Graduate, Department of Mathematics and Statistics

SCHULDT, STEVEN J., Maj, Dr. Leslie M. Norton Teaching Excellence Award

STAFIRA, LUKAS A., 2nd Lt, Cyberspace Research Excellence Award; Distinguished Graduate Award, Department of Electrical and Computer Engineering

STEELE, MEGAN L., 2019 American Industrial Hygiene Foundation Scholarship

SITLER, JEFFREY L., Lt Col Charles P. Brothers Jr. Outstanding Volunteer Service Award

TAYLOR, FORREST D., Maj, Center for Technical Intelligence Studies and Research Outstanding Thesis Award


VERGARA, CHRISTOPHER M., Capt, Air University International Student Badge (Australia)

VILLARREAL, MICAH, Capt, Distinguished Graduate, Department of Electrical and Computer Engineering

WEBB, JEREMIAH M., 1st Lt, 2019 Air Force Historical Foundation Award (General Bryce Poe II Award); General Bryce Poe II Award

ZOELICK, CASEY L., Capt, 2019 Dean’s Award for the most exceptional master’s thesis for a student graduating in the Department of Engineering Physics, These Title: Source Term Estimation of Atmospheric Pollutants Using an Ensemble of HYSPPLIT Concentration Simulations; Distinguished Graduate, Department of Engineering Physics
3.3 EXTERNAL SPONSOR FUNDING FOR THE GRADUATE SCHOOL OF ENGINEERING AND MANAGEMENT

Many of the Graduate School of Engineering and Management’s theses and research projects, completed under faculty supervision, are funded in part by other Air Force, DOD and government units and agencies. Often, this funding results from collaboration between faculty and thesis sponsors and occurs when the research project can be leveraged by the purchase of equipment or services not otherwise available. Figure 3.2 summarizes the past ten fiscal years of sponsored funding. Tables 3.3 and 3.4, and Figure 3.3, summarize external funding for FY19.

Figure 3.2 New Award History FY10-FY19

Table 3.3 FY19 External Funding & Research Expenditures for Academic Departments & Research Centers ($1,000’s)

<table>
<thead>
<tr>
<th>Department</th>
<th>Newly Awarded Research Projects</th>
<th>Newly Awarded Education Projects</th>
<th>Total FY19 Newly Awarded Projects</th>
<th>Total FY19 Research Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#  $k</td>
<td>#  $k</td>
<td>#  $k</td>
<td>$k</td>
</tr>
<tr>
<td>Mathematics &amp; Statistics (ENC)</td>
<td>11  827</td>
<td>0  0</td>
<td>11  827</td>
<td>1,308</td>
</tr>
<tr>
<td>Electrical &amp; Computer Eng (ENG)</td>
<td>43  5,946</td>
<td>3  347</td>
<td>46  6,293</td>
<td>8,915</td>
</tr>
<tr>
<td>Engineering Physics (ENP)</td>
<td>45  5,625</td>
<td>0  0</td>
<td>45  5,625</td>
<td>6,995</td>
</tr>
<tr>
<td>Research &amp; Sponsored Programs (ENR)</td>
<td>1  75</td>
<td>0  0</td>
<td>1  75</td>
<td>-</td>
</tr>
<tr>
<td>Operational Sciences (ENS)</td>
<td>21  6,105</td>
<td>7  300</td>
<td>28  6,405</td>
<td>6,928</td>
</tr>
<tr>
<td>Systems Eng &amp; Management (ENV)</td>
<td>15  975</td>
<td>2  243</td>
<td>17  1,218</td>
<td>1,445</td>
</tr>
<tr>
<td>Aeronautical &amp; Astronautical Eng (ENY)</td>
<td>58  3,874</td>
<td>2  49</td>
<td>60  3,923</td>
<td>8,845</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>194</strong>  <strong>23,427</strong></td>
<td><strong>14</strong>  <strong>939</strong></td>
<td><strong>208</strong>  <strong>24,366</strong></td>
<td><strong>34,436</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Center</th>
<th>Newly Awarded Research Projects</th>
<th>Newly Awarded Education Projects</th>
<th>Total FY19 Newly Awarded Projects</th>
<th>Total FY19 Research Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#  $k</td>
<td>#  $k</td>
<td>#  $k</td>
<td>$k</td>
</tr>
<tr>
<td>Autonomy and Navigation Technology (ANT)</td>
<td>24  3,969</td>
<td>3  347</td>
<td>27  4,316</td>
<td>5,048</td>
</tr>
<tr>
<td>Center for Cyberspace Research (CCR)</td>
<td>10  746</td>
<td>0  0</td>
<td>10  746</td>
<td>1,823</td>
</tr>
<tr>
<td>Center for Directed Energy (CDE)</td>
<td>23  2,615</td>
<td>0  0</td>
<td>23  2,615</td>
<td>3,107</td>
</tr>
<tr>
<td>Center for Operational Analysis (COA)</td>
<td>8  1,465</td>
<td>2  96</td>
<td>10  1,561</td>
<td>3,175</td>
</tr>
<tr>
<td>Center for Space Research and Assurance (CSRA)</td>
<td>29  2,589</td>
<td>1  15</td>
<td>30  2,604</td>
<td>3,195</td>
</tr>
<tr>
<td>Center for Tech Intel Studies &amp; Research (CTISR)</td>
<td>12  2,027</td>
<td>0  0</td>
<td>12  2,027</td>
<td>2,181</td>
</tr>
<tr>
<td>Nuclear Expertise for Advancing Technologies (NEAT)</td>
<td>5  635</td>
<td>0  0</td>
<td>5  635</td>
<td>407</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>111</strong>  <strong>14,046</strong></td>
<td><strong>6</strong>  <strong>458</strong></td>
<td><strong>117</strong>  <strong>14,504</strong></td>
<td><strong>18,936</strong></td>
</tr>
</tbody>
</table>

Notes: Total research expenditures reported include institutional cost sharing, which is not included in newly awarded projects. Numbers reported to the NSF research expenditure surveys vary somewhat due to differences in definitions. All Center funds are also included in departmental funding.
Table 3.4 New FY19 Awards to Academic Departments & Research Centers by Sponsor

<table>
<thead>
<tr>
<th>Dept.</th>
<th>AFRL (Non-AFRL)</th>
<th>AFRL</th>
<th>AFMC</th>
<th>Other USAF</th>
<th>Other DOD</th>
<th>Other Federal</th>
<th>Non-Federal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC</td>
<td>578</td>
<td>-</td>
<td>249</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>827</td>
</tr>
<tr>
<td>ENG</td>
<td>4,346</td>
<td>100</td>
<td>591</td>
<td>1,236</td>
<td>-</td>
<td>20</td>
<td>-</td>
<td>6,293</td>
</tr>
<tr>
<td>ENP</td>
<td>782</td>
<td>100</td>
<td>1,486</td>
<td>2,766</td>
<td>491</td>
<td>-</td>
<td>-</td>
<td>5,625</td>
</tr>
<tr>
<td>ENR</td>
<td>75</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>75</td>
</tr>
<tr>
<td>ENS</td>
<td>990</td>
<td>1,994</td>
<td>112</td>
<td>2,319</td>
<td>940</td>
<td>50</td>
<td>-</td>
<td>6,405</td>
</tr>
<tr>
<td>ENV</td>
<td>469</td>
<td>243</td>
<td>237</td>
<td>199</td>
<td>70</td>
<td>-</td>
<td>-</td>
<td>1,418</td>
</tr>
<tr>
<td>ENY</td>
<td>1,281</td>
<td>70</td>
<td>404</td>
<td>2,058</td>
<td>70</td>
<td>40</td>
<td>-</td>
<td>3,923</td>
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<tr>
<td>TOTAL</td>
<td>8,521</td>
<td>2,507</td>
<td>3,079</td>
<td>8,578</td>
<td>1,571</td>
<td>110</td>
<td>-</td>
<td>24,366</td>
</tr>
</tbody>
</table>

Note: “Other DOD” in this table includes the DEJTO, OSD, NGA, NSA, US Army, and US Navy pie slices from Figure 3.3, plus funding from other DOD organizations.

Center

<table>
<thead>
<tr>
<th>Center</th>
<th>AFRL (Non-AFRL)</th>
<th>AFRL</th>
<th>AFMC</th>
<th>Other USAF</th>
<th>Other DOD</th>
<th>Other Federal</th>
<th>Non-Federal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT</td>
<td>2,696</td>
<td>-</td>
<td>380</td>
<td>1,220</td>
<td>-</td>
<td>20</td>
<td>-</td>
<td>4,316</td>
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<tr>
<td>CCR</td>
<td>520</td>
<td>-</td>
<td>211</td>
<td>15</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>746</td>
</tr>
<tr>
<td>CDE</td>
<td>378</td>
<td>100</td>
<td>45</td>
<td>2,066</td>
<td>26</td>
<td>-</td>
<td>-</td>
<td>2,615</td>
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<tr>
<td>COA</td>
<td>285</td>
<td>696</td>
<td>2</td>
<td>528</td>
<td>-</td>
<td>50</td>
<td>-</td>
<td>1,561</td>
</tr>
<tr>
<td>CSRA</td>
<td>456</td>
<td>7</td>
<td>315</td>
<td>1,826</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2,604</td>
</tr>
<tr>
<td>CTISR</td>
<td>181</td>
<td>-</td>
<td>1,415</td>
<td>431</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2,027</td>
</tr>
<tr>
<td>NEAT</td>
<td>-</td>
<td>-</td>
<td>100</td>
<td>110</td>
<td>425</td>
<td>-</td>
<td>-</td>
<td>635</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4,516</td>
<td>803</td>
<td>2,468</td>
<td>6,196</td>
<td>451</td>
<td>70</td>
<td>-</td>
<td>14,504</td>
</tr>
</tbody>
</table>

Note: All Center funds are also included in departmental funding.