

FY 20/21 Request for Research Funding  
December 31, 2020

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|-----------|---------------|--|---|---|
| D5-21-01  |               | Artificial Intelligence (AI) Use in Post Natural Disaster Damage Assessment  | Mo Hassan                               | Approved<br>Scope under review          |
| D6-21-01  |               | Assess the Impacts of Autonomous Connected Electric and Shared (ACES) Mobility   | Neil Lyn                                | Approved<br>Scope under review          |
| AV-21-01  |               | Counting Airport Operations Using Aircraft Transponder Signals and/or Aircraft Automatic Dependent Surveillance-Broadcast (ADS-B) Data | Abdul Hatim                             | Approved<br>Scope under review          |
| OPP-21-01 |               | Incorporation of Climatic and Hydrologic Nonstationarity into FDOT Planning and Design Guidelines and Processes                        | Jennifer Carver                         | Approved<br>Scope under review          |
| OPP-21-02 |               | Development of Geospatial Framework to Support Robust Analysis of Transportation Infrastructure to Climate Impacts                     | Jennifer Carver                         | Approved<br>Scope under review          |
| OPP-21-04 |               | Focused Law Enforcement Survey Design  | Brian Watts                             | Approved                                |
| OPP-21-07 |               | Crashes Related to Driveway Access in the Vicinity of Interchanges   | Gina Bonyani                            | Approved<br>Scope under review          |
| OPP-21-08 |               | Crashes Related to Types of Driveway Access  | Gina Bonyani                            | Approved<br>Scope under review          |
| PTO-21-01 |               | Assessment of the Mobility Energy Productivity (MEP) Metric for Public Transit Applications in Florida                                 | Gabe Matthews                           | Approved<br>Scope under review          |
| PTO-21-02 |               | Examining Data Needs and Implementation Process of AV-based Microtransit Service: A Case Study in Lake Nona                            | Gail Holley/Raj Ponnaluri/Gabe Matthews | Approved<br>Scope under review          |
| SMO-21-01 | BDV31 977-136 | NEXTGEN Concrete - The Tests of the Future   | Tim Ruelke                              | Executed                                |
| SMO-21-02 | BDV31 977-137 | Improved Resilience of Asphalt Pavements Due to Flooding   | Greg Sholar                             | Approved<br>To university for signature |
| SMO-21-03 |               | Practical Mix Design Guidelines for Reflective Cracking Resistant Mixtures - continuation study  | Howie Moseley                           | Approved<br>Scope under review          |

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| SMO-21-04 | BDV25 977-75 | Peak Temperature Determination of Drilled Shafts Excluded from Mass Concrete Consideration in Current Specifications | Jose Armenteros          | Approved<br>To university for signature |
| SMO-21-05 |              | Impact of Increased Allowable Truck Loads on Pavement Life   | James Greene             | Approved<br>In Procurement              |
| SMO-21-06 |              | Improved Resilience of Rigid Pavement Systems  | Nour Nazef               | Approved<br>Scope under review          |
| SMO-21-08 |              | Open-Graded Friction Courses Suitable for Suburban Environments  | Wayne Rilko              | Approved<br>Scope under review          |
| SMO-21-09 |              | Development of a Test to Quantify Organic Content in Silica Sand   | John Shoucair            | Approved<br>In Procurement              |
| SMO-21-10 |              | Evaluation of Pavement ME Design Software for Flexible Pavements   | Mary Jane Hayden         | Approved<br>In Procurement              |
| STR-21-01 |              | Detailing of Externally Bonded FRP for Shear Strengthening   | Will Potter              | Approved<br>In Procurement              |
| STR-21-02 |              | Wound FRP Shear Reinforcement for Concrete Structures  | Will Potter/Steve Nolan  | Approved<br>On hold                     |
| STR-21-03 | BDV30 977-34 | Quantifying the Effect of UHPC Fiber Dispersion and Orientation in Structural Members                                | Christina Freeman        | Approved<br>To university for signature |
| STR-21-04 |              | Anchorage Zone of PT Pier Caps Integral with Steel Girders   | Will Potter              | Approved<br>Withdrawn                   |
| STR-21-05 |              | Confinement Effect of Narrow Baseplates or Reaction Area on Anchor Breakout, Part 2                                  | Will Potter/Steve Nolan  | Approved<br>Scope under review          |
| STR-21-06 |              | Straight Steel I-Girder Bridges with Skew Index Approaching 0.3  | Will Potter/Vickie Young | Approved<br>In Procurement              |
| TDA-21-01 |              | Development of Congestion Factors for Adjusting Traffic Counts During Congested Periods                              | Joey Gordon              | Approved                                |

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| TEO-21-01 |              | Human Factors Study on the Use and Effectiveness of Innovative Safety Messages on Dynamic Message Signs                           | Dana Knox/John Easterling           | Approved<br>Scope under review          |
| TEO-21-02 | BDV29 977-63 | Environment for Testing and Assessing Infrastructure Support of Connected Vehicle and Cooperative Highway Automation Applications | Raj Ponnaluri/Javier Rodriguez (D6) | Approved<br>To university for signature |
| TEO-21-03 | BDV25 977-73 | Development of Crash Modification Factors for Speed Management Using Pedestrian-friendly Traffic Signal Progression               | Alan El-Urfali                      | Executed                                |
| TEO-21-04 | BDV29 977-62 | Guidelines for Activating Ramp Meters During Off-peak Hours   | Alejandro Motta                     | Approved<br>To university for signature |
| TEO-21-05 |              | Performance Evaluation of Connected Vehicle (CV) and Transportation Systems Management and Operations (TSM&O) Projects in Florida | Raj Ponnaluri                       | Approved<br>Scope under review          |
| TEO-21-06 | BDV24 977-37 | Study of Operational and Safety Impacts of Disabled and Abandoned Vehicles on FDOT Roadways                                       | Eric Gordin                         | Approved<br>To university for signature |