IEEE Aerospace Electronic Systems

DSTEI Project -- Update

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AESS Board of Governors

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San Antonio TX

DSTEI

Distributed Sensing Technology and Education Initiatives

3-Year Initiative for Underrepresented Regions

- New businesses that support commercial growth in distributed sensing technology
- Increase AESS membership
- Courses for engineering growth in regional aerospace technology. Encourage YP and small businesses to establish technical and sustainable products

Expect to Grow Technical Capabilities

- Focus on small drones, cyber security, and distributed sensing (Radar/EO/Data Fusion) for future commercial applications within geoscience and border security
- Significant increase in students and YP for Regions 9 & 10
- Encourage industry support and development of new technology courses

Framework of DSTEI Project

- Emphasis On Education For Student Branch Chapters
  - Develop System Engineering Approach For Student Branche Chapters (SBC)
  - Attracting New AES Members – Measure From The Start to Leverage IEEE/AESS Leaders
  - Provide Funding For Project Materials And Region/Section Collaboration
- AESS Board of Governors Provide Distinguished Lectures And/Or Tutorials
  - Distributed Sensor Systems, Navigation, Fusion, Cyber Security, System Design & Test
  - In Chapter Meetings With Virtual And In–person For AESS Section Participation
- Each Project Starts With Grant Funding Through An AESS Section Chair
  - Phase 1 Focus On Breadboard Design, Modeling Key Parameter Analyses
  - Set Up AESS Mentoring To Provide A Transition Path To YP And Industry
  - Focus On Preliminary Design Review In 10 Months
- This Approach Has Been Approved By IEEE TAB VP and President-Elect

Need To Education SBCs For Proposal And Program Review Techniques

DSTEI Project Teams

- Region 9 -- South America
  - Univ. del Cauca, Cauca Colombia, “Drone Swarm System for Agricultural Surveillance of Coffee Crops ", IEEE Colombia Section
    - Camilo Segura, Student Branch ; Dr. Liseth Viviana Campo, Student Branch Advisor
  - Universidad National San Antonio Abad del Cusco (UNSAAC), Cusco Peru, “Smart Drones for Prevention of Forest Fires", AESS Peru Section
    - Alberto Arturo Quinones, Student Branch; Dr. Walter Mego, Student Branch Advisor
- Region 10 – India
  - Nitte Meenakshi Inst Of Tech Student (NMIT), Bengaluru, India, “ Fire Extinguisher Unmanned Aerial Vehicle ”, IEEE Bangalore Section
    - Pradeep Kumar, Student Branch ; Dr. Parameshachari B. D, Student Branch Advisor
  - Sardar Patel Institute of Technology (SPIT), Mumbai, India, “Drones for Smart Agriculture”, AESS Bombay Section
    - Vineet Mankani, Student Branch; Dr. Sujata Kulkarni, Student Branch Advisor

Complementary Project Teams With Variation In Project Objectives, Sensors And Signal Processing

Message to Region 9 Student Branch Chapters

- We Congratulate These Student Branch Chapters From Region 9 For Selection For The Distributed Sensing Technology & Education Initiative
- This Is An Unique Opportunity For Students To Be Associated With The Aerospace and Electronics Systems Society And Help Formulate New Technologies To:
  - Provide “Advancing Technology for Humanity” From AESS Technology Leaders
  - Establish A Collaboration For New System Applications In Your Region Which Have A Transition Incubation For Small Businesses And Establish Careers for Young Professionals
- We Encourage All Of You To Reach Out To Other Student Chapters Within Your Sections & The Region To Attract New Members To IEEE and AESS.