Report of the National Visiting Committee

LASER-TEC: The Laser and Fiber Optics Regional Education Center Meeting Date: June 8 & 9, 2017

NVC Members

- 1. M.J. Soileau, Founder of CREOL, University of Central Florida, FL
- 2. Don Hawkins, VP Operations, Precision Contracting Services (PCS)
- 3. Richard DeSalvo, Senior Scientist, Harris Corporation, FL
- 5. Catheryn Logan, Senior Photonics Engineering Manager, Harris Corporation, FL
- 6. Yvette Mattley, Principal Applications Scientist, Ocean Optics, FL
- 7. Frank Caimi, Chief Scientist, SkyCross USA, FL
- 8. Gordon F Snyder Jr, Co-Principal Investigator, OP-TEC, TX
- 9. Dan Hull (not attending), Executive Director, OP-TEC, TX
- 10. Glenn Rustay (not attending), Principal, Northport K-8 School, FL
- 11. Ron Darbee (not attending), Division Superintendent, Lawrence Livermore Lab, NIF, CA
- 12. Helen Wild (not attending), Assistant Superintendent, St. Lucie Public Schools, FL
- 13. Dede Starnes (not attending), Program Manager, Corning Cable Systems, NC
- 14. John Muth (not attending), Deputy Director, Power America, NC
- 15. Larry Johnson (not attending), Director and Founder, The Light Brigade, WA
- 16. Alan Doctor (not attending), CEO, Laser Components Pyro Group, FL

LASER-TEC PI's

Chrys Panayiotou, PI, Director LASER-TEC, Indian River State College, Ft. Pierce, FL Gary Beasley, CoPI, Lead Photonics Instructor, Central Carolina CC, NC James Pearson, CoPI, Executive Director, FL Photonics Cluster, FL Dorian McIntire, CoPI Program Coordinator, Tri County Technical College, SC

Evaluator

Fraser Dalgleish, Optical Engineering Manager, Harbor Branch Oceanographic Institution

Others Attending: LASER-TEC Staff & Partner Colleges

Natalia Chekhovskaya, Program Manager, LASER-TEC, IRSC Lauren Hays, Program Coordinator, LASER-TEC, IRSC William Keiser, Photonics Technologist, LASER-TEC, IRSC Ed Massey, President, IRSC Patricia Profeta, VP, IRSC Kevin Cooper, Dean, IRSC

Moamer Hasanovic, Professor, IRSC

Constance Boahn, Chairperson, CCCC

Mandy Orzechowski (not attending), Dean, Tri-County Technical College, SC

Fran Korosec (not attending), Chief Operating Officer, BRIDG, FL

Executive Summary

Dr. Chrys Panayiotou and his team is to be congratulated for a very successful, well-run NSF Regional Center for its training of optics, lasers, and photonics technicians.

The team did an excellent job of summarizing the progress in the first phase of the program as evidenced in the growth in enrollment, courses offered, student credit hour generation, and student success as measured by graduation and job placement of students. Another program qualifier recognized by the committee, can be measured by the number of graduates being hired into NVC member companies along with the member companies working directly with LASER-TEC colleges to develop pipelines to fill staffing needs. The field trips organized by LASER-TEC to the member companies is a very effective way for the students to interact with industry and see firsthand what future careers could entail. In addition, the Center is doing an excellent job in outreach to K-12 students, especially young women, through a variety of innovative efforts.

The Program also demonstrates agility in that after President Obama's Integrated Photonics Manufacturing Initiative, which was transformed into AIM Photonics, LASER-TEC responded to include classes and laboratories to prepare technicians to support upcoming onshore silicon photonics manufacturing opportunities.

Their overall assessment of excellence is evident by NSF's decision to renew the program for an additional three years. The plans for the renewal period are in place and aligned with direction from NSF and lessons learned, and progress in the first phase.

Specific Commendations

- President Massey, administrators, faculty and staff at Indian River State College are commended for the strong commitment and support of LASER-TEC.
- LASER-TEC is commended for the commitment and involvement of the management team and staff (PI, CoPIs, Curriculum Director, Center Coordinator, etc.) involved in the project and the administration and staff involved in each partner college.
- LASER-TEC is commended for work to date.
- LASER-TEC is commended for the establishment of industry partnerships.
- LASER-TEC is commended for assisting and mentoring other colleges in the region.
- LASER-TEC is commended for modification/customization of OP-TEC developed recruiting materials.
- LASER-TEC is commended for best practices sharing, presentations, and exhibits over past year (Hi-Tec, etc.)
- LASER-TEC is commended for conference exhibits over past year.
- LASER-TEC is commended for the pre-meeting NVC summary package.
- We commend the outreach efforts to recruit veterans and the award of credit to knowledge gained during their military service.
- We commend the Center for reach out to the NVC for technician skill sets,

internships, field trips, employment of graduates, and for support and guidance. The NVC should be the radar for "what's coming" and for changing needs in Photonics.

Recommendations by the NVC

- Standard format for reporting data for each participation that can be "folded up" into a summary of overall program achievement.
- Should provide additional detail for course and program content offered by partners.
- The outreach activities are very impressive but an overall summary would be beneficial for future review, allowing more time to review specifics of training efforts and outcomes at partner colleges.
- The evaluation of the program needs focus on the outcomes of the various activities, e.g., outreach efforts, penetration of lasers and optics in the offerings of the partner colleges, placement and success of students at IRSC and partner colleges, etc.

Conclusion

The NVC is impressed by LASER-TEC's excellent work and is excited about the new award covering years 2017- 2020. The NVC concludes that confidence in LASER-TEC is high, and based on our observations this NSF funded Regional Center will continue to be successful, and a valuable contributor to the growth of the photonics industry.

MJ Soileau, PhD.

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