DATE: April 3, 2019

TO: Phillip Anzalone, Chair

College Council Curriculum Committee

FROM: Curriculum Subcommittee

Jeremy Seto (Chair), Robert Polchinski, Joseph Sollecito

RE: Final report for New Course Proposal 18-08 CET 4920 Introduction to Computer Vision

**COURSE TITLE AND NUMBER:** CET 4920 Introduction to Computer Vision

**CREDIT HOURS:** 4 credits, 3 class hours, 3 laboratory hours

**PRE/COREQUISITES:** CET 3640 or Departmental Approval

**Catalog Description**

Introduction to the fundamentals and basic application techniques of computer vision. It introduces fundamentals of image formation, camera model and imaging geometry, image processing, feature detection, background subtraction, and visual tracking. It helps students be familiar with the basic application techniques and methods in processing, analyzing, and understanding of images and videos captured by cameras for a variety of practical applications. Students use the latest hardware and software tools to design and develop a prototype computer vision application.

**Strengths**

This proposal is for a new course that would help to supplement the technical elective offerings for the BTech in Computer Engineering Technology. The course offers an introduction to topics in the emerging field of computer vision and image processing that is acknowledged to cross over into many disciplines. The course is a lecture/lab combination where students will transform the theoretical knowledge into a tangible product by the end of the course, as well as enhancing the abilities of students to troubleshoot through technical documents.

**Weaknesses**

None

**Issues and Concerns Discussed**

The subcommittee provided the proposers with several minor comments, which were adequately addressed. Some consultation with additional departments was recommended for offering an option of elective credits in those majors. No major concerns were found.

**Subcommittee activities**

After receiving the revised proposal, the subcommittee held a meeting with Provost August, Associate Provost Brown, Kim Cardascia, Sunghoon Jang and the proposers (Xiaohai Li. Lili Ma) on April 3, 2019. Final revisions to the proposal were completed after additional suggestions were made.