Overview Statement

Truong Xuan Nghiem

School of Informatics, Computing, and Cyber Systems (SICCS)
Northern Arizona University (NAU)

Original: May 2023; Minor updates in February 2024

1 Introduction

I have been an assistant professor in the School of Informatics, Computing, and Cyber Systems (SICCS) at NAU since January 2018; however, my tenure clock began in the Fall 2018 semester (AY2018–2019). In what follows, I document my contributions as assistant professor for the purpose of promotion to Associate Professor with Tenure.

The SICCS Conditions of Faculty Service (COFS) documentation, found in Appendix E, states that the following criteria are to be met for promotion to Associate Professor with Tenure.

> *"To be promoted to the rank of Associate Professor with tenure, faculty must demonstrate effectiveness in all areas appropriate to the faculty member's workload allocation."*

Table 1 presents my formally assigned workload allocation for each year that I have been at NAU, and my overall ratings on my annual evaluations by the SICCS Annual Review Committee (ARC) and the SICCS Director. The possible ratings are as follows: unsatisfactory, satisfactory (for meeting expectations), meritorious (for *exceeding expectations*), and highly meritorious (for *substantially exceeding expectation*). My overall five-year average ratings are both *highly meritorious*. In the following subsections, I highlight my accomplishments in student-related, scholarly, and service activities. I further expand on these areas in three attached documents: *Student-Related Activities Statement*, *Scholarly Activities Statement*, and *Service Activities Statement*. These are complemented by the appendices (see the Table of Contents).

2 Student-Related Activities (Average Workload Allocation: 24%)

- I have substantially exceeded the COFS expectations to receive the highest rating of **highly meritorious** in student-related activities in my annual evaluation every year from the Annual Review Committee (ARC).
- I have developed or completely re-designed 4 courses, each with significant hands-on and experiential learning components: EE458 Automatic Controls, EE558 Advanced Automatic Controls, EE499 Introduction to Autonomous Driving, and EE599/EE559 Modern Control Systems.
- I taught 10 undergraduate and graduate sections of regular courses, and supervised 4 undergraduate students and 11 graduate students in individual study/research courses.
- I received excellent student feedback and high evaluation scores: **3.50/4.00** average for co-convened EE458/EE558, and **3.75/4.00** average for EE599/EE559.
- I have advised **12 graduate** students, **10 undergraduate** research students, and **10 Capstone** project teams (34 students total).

Table 1: *Workload allocation for each year that I have been at NAU. I joined in Spring 2018, thus my AY 2017–2018 was only half-year. My tenure clock started in Fall 2018 of AY 2018–2019. Descriptions of possible ratings are in the text.*

Acad. Year	ARC Eval.	Director's Eval.	Student-Related (%)	Scholarly (%)	Services & Other (%)
2017–2018 (half-year)	Highly Merit.	Highly Merit.	5	85	10
Tenure clock started in AY 2018–2019					
2018–2019	Merit.	Merit.	15	75	10
2019–2020	Highly Merit.	Merit.	22.5	67.5	10
2020–2021	Highly Merit.	Highly Merit.	27	63	10
2021–2022	Highly Merit.	Highly Merit.	25	65	10
2022–2023	Highly Merit.	Highly Merit.	30	45	25
5-year Ave.	Highly Merit.	Highly Merit.	24	63	13

- I published 8 papers with my graduate students (7 papers where students are the first author and 1 paper where students are co-authors, including 2 journal papers and 6 conference papers), and a conference paper with undergraduate students, all in well-regarded venues.
- My students won a best presentation award, several NAU Presidential Fellowships, co-founded startup companies in the US and in Vietnam, and joined prestigious U.S. graduate programs.

3 Scholarly Activities (Average Workload Allocation: 63%)

- In my annual evaluations, the Annual Review Committee (ARC) has ranked me as ***highly meritorious*** in the scholarly activity category every year except AY 2018–2019 where I was ranked *meritorious*. Overall, I have substantially exceeded my workload expectations in this area, as defined by my unit COFS.
- My research develops the learning and control foundation of intelligent cyber-physical systems, through synergistic integration of machine learning, control, and optimization, with applications in autonomous systems.
- I am a recipient of the prestigious **NSF CAREER award** and the **NSF ERI award**.
- I have secured a total of **$11.05M** in grant funding (**$10.95M** in extramural grants) as PI and Co-PI, with **$2.57M** under my direct management (**$2.55M** in extramural grants), across federal funding agencies (NSF, ARL), industry, and professional organizations. My extramural grants are competitive.
- In the last five years, I have submitted about 6.6 funding proposals per year on average. Since joining NAU, I have submitted 39 proposals (excluding small ones of less than $10K), of which 2 are currently pending and 14 were funded (success rate: $14/37 = 37.8\%$); out of my 14 NSF proposals, 2 are currently pending and 4 were funded with 3 as PI (success rate: $4/12 = 33.3\%$).
- Since joining NAU, I have published in highly reputable venues **29 papers**, with 4 additional journal articles currently under review. Of these papers, I am the lead author or one of the lead authors on roughly 39%, my students are co-authors on about 33% and have lead authorship roles on about 21%, and I am a senior/supervising author on about 30%. In the last five years, my number of citations has increased from 491 to 1278 with the h-index rising from 11 to 18.

- **On average** over 5 years, I have submitted **10** papers/year, published **5.2** papers/year, submitted **6.6** grant proposals/year, and managed directly **$120.5K/year** of annual active funding (**$116.8K/year** of active extramural funding).
- I received a Best Paper Award and a Best Presentation Award for my publications.
- Due to my scholarship accomplishments, I have been promoted to **senior member** of the IEEE (Institute of Electrical and Electronics Engineers).

4 Service and Other Activities (Average Workload Allocation: 13%)

- In my annual evaluations, the Annual Review Committee (ARC) has ranked me as ***highly meritorious*** in the service activity category every year except in AY 2019–2020 where I was ranked *meritorious*. Overall, I have substantially exceeded my workload expectations in this area, as defined by my unit COFS.
- Service to the profession: I have reviewed papers for 8 different journals and 9 different conferences (multiple times for each), been a grant proposal panelist for four NSF review panels, led the organization of and co-chaired a well-received tutorial session at the 2023 American Control Conference, had membership on technical program committees, served as the publication chair of the ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS) in 2024, chaired or co-chaired technical sessions at premier conferences, and given 5 invited talks.
- Service to the university: I have been on several high impact committees, including four faculty search committees, the SICCS Annual Review Committee (ARC) / Faculty Status Committee (FSC), the University Graduate Committee (UGC), the academic integrity committee, and ECE undergraduate and graduate curriculum committees (as member and chair) over multiple years.
- I have been the Assistant Chair of ECE of SICCS since Fall 2022. In this role, I have co-developed (recently approved) proposals for improving our PhD program and for a new PhD emphasis area in ECE, and have been assisting the development of a new certificate program in semiconductors/microelectronics.