TANMS Diversity and Inclusion Strategic Approach

GOAL	STRATEGY
Promote a Culture of Inclusion	▪ Create opportunities for individuals in the center to connect and collaborate through research projects, seminars, meetings and social events. ▪ Facilitate mentoring opportunities for faculty and graduate students to interact with diverse undergraduate students and the K-12 community (e.g., targeted recruitment of women and URM students into all education programs). ▪ Orient graduate/postdoc mentors in supportive mentoring practices to foster sense of belonging, validation and engineering identity among students from underrepresented groups (e.g., mentor training and ongoing coaching). ▪ Maintain center members informed on current research based. inclusive institutional practices in higher education and industry through learning modules, seminars, and workshops that build the multicultural awareness and cultural competencies of center members and program participants (e.g., Undergraduate and High School Diversity Module and Field Trip; Diversity Workshops; Guest Speakers on Diversity and Inclusion; Student Body engagement with diversity focused student organizations on their respective campuses).
Increase TANMS Engineering Education and Workforce Diversity	▪ Design and perform strategic outreach and recruitment with special focus on underrepresented populations, including but not limited to women, individuals from racial and ethnic minority groups, first generation low income students, LGBT, veterans and persons with disabilities (e.g., TANMS Graduate Fellowship, partnerships with Community Colleges, HBCUs and HSI, and other minority-serving Institutions). ▪ Maintain and nurture relationships with national minority engineering student organizations (e.g. AISES, NSBE, SHPE, GEM, NAMEPA, WEPAN, SWE. Leverage the UCLA Center for Excellence in Engineering and Diversity (CEED) engagement with this organizations; e.g., CEED, a TANMS partner attends national conferences of these organizations and hosts recruitment and informational booths engaging approximately 300 underrepresented engineering students with TANMS REU materials, and graduate school opportunities in multiferroic study and research. ▪ Establish partnerships with local school districts serving low income and students from diverse cultural, ethnic, and racial backgrounds (e.g., a total of 21 partner schools with high percentage of low income URM students, 2017-2018 and 2018-2019 academic years). ▪ Disseminate TANMS science-based curriculum to K-12 students at schools serving diverse students, through teacher professional development institutes and other vehicles, such as the Mathematics Engineering Science Achievement (MESA) competition and approved Course (e.g., HSSI reaching ~2500 students across 21 schools and 9 school districts).
Assess Impact of TANMS Diversity Practices	▪ Implement formative and summative program assessment including collection of qualitative and quantitative metrics of quality of program experience and participant outcomes including students' science interest, and sense of efficacy along TANMS core skill sets, Engineering career aspirations and TANMS science knowledge acquisition (e.g., measures developed and Institutional Review Board approval for the collection of education program participant outcome data at all TANMS campuses and select K-12 partner institutions, secured for 2018-2019). ▪ Track all applicants' and participants' demographic information for all programs and maintain in database. ▪ Track TANMS graduate career paths and contributions to the field through implementation of Alumni Survey (e.g., pilot alumni survey administered 2017 and formal assessment carried out in 2018, with initial positive findings regarding alumni (1) engineering higher education degree completion and entrance into engineering workforce; (2) attribution of relevant skillsets and competencies to their participation in TANMS (creative and innovative thinking and knowing how to engage in entrepreneurship); (3) high levels of satisfaction with quality of interactions with faculty and peers and TANMS inclusive culture.)