**RESEARCH EXPERIENCE FOR UNDERGRADUATES IN NEPAL**

**A workshop for administrators, faculty, and students from predominantly private and public undergraduate institutions**

Organizer: Central Department of Mathematics , Tribhuvan University and Association of Nepalese Mathematicians in America (ANMA)

Workshop Leader: Dr. Narayan Thapa

Department Head and Associate Professor of Mathematics

Cameron University, Lawton, Oklahoma, USA

Abstract:

Over the last decade, the participation of undergraduate students in collaborative research, scholarship, and creative activities with faculty members in Science Technology Engineering and Mathematics (STEM) have grown remarkably. Knowledge of mathematics and its advancement is a major tool to analyze real-world applications in engineering, physics, chemistry, earth science, finance, and biological sciences-the importance of undergraduate research through mathematics is enormous especially in two-year and four-year institutions. Indeed, the undergraduate research impacts all partners of higher education: students, faculty, two-year and four-year institutions, graduate and professional institutions, business and corporate associates and non-profit community partners.

In this workshop, we outline the current trend in Undergraduate Research worldwide. In particular, we explore research opportunities for faculty and students from Nepal in the United States, Canada, Australia, and in the United Kingdom. Then, we discuss creative project development, implementation, and evaluation process that helps in recruitment and retention at academic institutions. In addition, we highlight some best practices in putting your institution on the map through high-impact learning practices including the Undergraduate Research.

Program Date: TBA

Program Outlines:

Program Information: 12- 2:00 PM(We will decide after consultation with Kedar sir and availability of venue)

Dr. Thapa’s Bio:

Dr. Narayan Thapa, Chair of Department of Mathematical Sciences, Cameron University, is a passionate mentor who has a track record of leading successful undergraduate research projects in Science, Technology, Engineering, and Mathematics (STEM). He has been awarded 25 research grants, including four National Science Foundation (NSF) grants through Mathematical Association of America (MAA) in eight years. Since 2010, he has mentored 36 undergraduates, of whom 15 were female and five from under-represented groups. Together, he has mentored 26 undergraduate research projects that were interdisciplinary in nature. These projects have led to several publications in refereed journals, 18 presentations at regional conferences, 22 presentations at MathFest and Joint Mathematics Meetings, and two poster presentations at the Council on Undergraduate Research and MathFest. Several of his past mentees are currently pursuing a doctorate degree in STEM at several universities in the United States.

With help of grants supported by NSF through MAA, Dr. Thapa initiated and organized the Regional Undergraduate Mathematics Conference (North Dakota Undergraduate Mathematics Conference) in 2013, 2014 and Texas/Oklahoma Regional Undergraduate Symposium (TORUS) at Cameron University in 2017. In 2015, Dr. Thapa received a grant from NSF through MAA, Preparation for Industrial Careers in Mathematical Sciences (PIC Math) to collaborate on a research project, “Modeling the recent Ebola outbreak in Africa,” with a scientist at Los Alamos National Lab. Similarly, he received another grant from NSF through MAA, Preparation for Industrial Careers in Mathematical Sciences (PIC Math) to lead a research project at Cameron University in 2016. In addition, Dr. Thapa led several projects that were funded by ND space grant, university internal grants, and a grant from Educational Advancement Foundation.

In recognition of his passionate efforts to mentor undergraduate students in research, Dr. Thapa was awarded the 2014-2015 Faculty Mentoring Award by the Council on Undergraduate Research (CUR) for his outstanding work in mentoring undergraduate students in research (<http://www.mathcscur.org/wp-content/uploads/2018/01/MathNewsletter101515.pdf>). He has also been awarded the Minot State University 2014-2015 Board of Regents Faculty Achievement Award for excellence in scholarship, the Minot State University Vision 2013 Merit Award for Outstanding Work in Expanding Undergraduate Research in Mathematics, and the Mathematical Association of Americas Project NExT Fellowship award in 2010.

Besides his role as a research mentor, Dr. Thapa has been actively involved in supporting and promoting undergraduate research through his role as the judge for the Undergraduate Poster Presentation at MathFest and JMM for five consecutive years (2010-2015). During this period, he also helped pose problems for several mathematical competitions organized by MAA. He is currently serving as the Chief Editor of the Journal of Scientific Research and Reports, and Academic Editor for the British Journal of Mathematics and Computer Science.

Dr. Thapa holds a Ph.D. and M.A. degrees in Mathematics, and an M.Ed. degree in Instructional Leadership and Academic Curriculum from the University of Oklahoma, Norman, OK, USA and an M.Sc. degree in Mathematics from Tribhuvan University, Kathmandu, Nepal.