

ANMA NEWSLETTER

ASSOCIATION OF NEPALESE MATHEMATICIANS IN AMERICA



Editorial

ANMA Newsletter: The First Issue

It is a great pleasure to present the first issue of ANMA Newsletter. We would like to thank the entire team of ANMA for providing us with this wonderful opportunity to conduct such a responsible, challenging, and exciting task. In the verge of thrilled emotion, we extend our appreciation to those who helped us prepare this issue.

We strongly anticipate that ANMA Newsletter will be successful in achieving its goal of creating a common podium for exchanging the news and views of mathematicians from around the globe. In particular, we foresee that the ANMA Newsletter will build a bridge for transferring knowledge and ideas between researchers in and outside Nepal. Given decades-long unsettled chaos in every aspect of the country, bringing great minds together for the exchange of knowledge, skills, and innovations is much needed for the betterment of mathematical research in Nepal. We hope ANMA Newsletter's efforts will help breed new collaborations expanding mathematical research activities in Nepal.

In this issue, we focus on disseminating ANMA's objectives and activities, including a historic "International Conference on Applications of Mathematics to Nonlinear Sciences" that is being held on May 26-29, 2016 in Kathmandu, Nepal. While we will put full efforts on continuing and establishing ANMA Newsletter for many years to come, we cannot think of doing so without your encouragement and help. We will be eagerly waiting for your suggestions and support on how this Newsletter can be improved in the future.

We wish you ALL happy and wonderful days ahead!

Deepak Basyal, Raj Dahal, and Naveen K. Vaidya
Editorial Board

ANMA President's Message

First, I wish everyone a Happy New Year 2073 Bikram Sambat.

Since its inception in 2010, the Association of Nepalese Mathematicians in America (ANMA) has been growing by leaps and bounds every year. The ANMA has already impacted on the global community of academicians and researchers in mathematical sciences. The international conference on Applications of Mathematics to Nonlinear Sciences (AMNS-2016) being held in Kathmandu on May 26-29, 2016, is a great example. In the past years, the ANMA organized a number of workshops in Nepal for high school teachers, university faculty, and research scholars. The organization has been helping Nepalese mathematicians in Nepal and abroad with the resources they need for their scholarship and professional development. In addition, the ANMA carried out a fundraiser for the victims of a disastrous earthquake that hit Nepal in 2015. The collected fund was then donated for rebuilding a school in a hard hit and remote region in the country.

The wonderful experience I have gained over a period of several years since its establishment by getting involved in ANMA's activities in various ways has been amazing. It is my distinct privilege to work with friends who have a great deal of enthusiasm for their service to the scientific community. High level of support from all Nepalese mathematicians and statisticians in North America and other parts of the world is what has made the organization increasingly visible at the global level. No organization can flourish and sustain without its members' active involvement in its programs; the ANMA is no exception as its past proved it.

The future of the ANMA looks very bright and I foresee that it will stand out as one of the leading professional and scientific organizations in the world. I would like to thank everyone who has been involved in the organization for its betterment. Without your support, the ANMA would not have reached in any way where it stands now. I wish everyone a great success of your professional services. Let's get connected and grow together professionally!

Dr. Dhruba Adhikari
President, ANMA

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HAPPY NEW
2 YEAR



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Brief History of ANMA

In this globalized world of 21st century, there exists a growing demand of a global networking organization among every professional group. As such, a need for a forum to unite Nepalese mathematicians around the globe was vigorously realized in 2009. With a hope of fulfilling this gap, two Nepalese mathematicians, Dr. Deepak Basyal and Dr. Santosh Bhattarai, initiated dialogues among Nepalese mathematicians in North America. Their appreciable efforts on reaching out many colleagues across North America and overwhelming interests of Nepalese mathematicians eventually resulted in the inception of the Association of Nepalese Mathematicians in Americas (ANMA). On May 8, 2010, an ad-hoc committee of ten members, led by Dr. Durga Jang KC, was formed. Overall goal of establishing ANMA is to provide a forum for educators, researchers, and scholars to promote collaborations among mathematicians in and outside Nepal, thereby advancing mathematical research and modernized teaching activities in Nepal.

The initial ad-hoc committee wrote the by-laws of ANMA and completed the first general convention. An election via telephone conference in January 22, 2011 elected an executive committee of nine members with Dr. Mukta Bhandari as the president. The ANMA was formally registered in the office of the secretary of state, Indiana, on March 14, 2011 (coincidentally, on the "Pi Day").

The second general convention held on January 26, 2013 via telephone conference elected an executive committee for the tenure of 2013-2015 with Dr. Netra Khanal as the president. Similarly, the San-Antonio convention held on January 12, 2015 elected the current executive committee with Dr. Dhruba Adhikari as the president. As of today, the ANMA has more than 50 life members and more than 150 general members in North America.

ANMA Library

With a long-term goal of establishing a mathematical sciences library in Kathmandu, Nepal, ANMA has initiated a ONE-DARAAJ library at Kathmandu Model College. The Library contains several mathematics books, including Algebra and Calculus, mostly used for undergraduate curriculum in USA. In addition, it also carries the graphing calculators donated by Texas Instruments.

For expanding it to a larger facility in the future, the ANMA continuously solicits donations from individual(s) and/or organization(s). The ANMA will highly recognize and appreciate contributions to this endeavor for helping mathematical education and research in Nepal.

ANMA sincerely requests all for donating books related to any fields of mathematics, including but not limited to Mathematical Physics, Mathematical Biology, Biostatistics, Financial Mathematics, Econometrics, Mathematical Economics, and Math Education.

Library contacts:

Mr. Dhruba Bhattarai, Director-Kathmandu Model College (Mobile: 9851103377)

Ms. Sharada Thapa, Librarian-Kathmandu Model College (Mobile: 9841456670)



Participants of San Antonio Conference 2015



Past Activities of ANMA

To achieve its goal of supporting mathematics educators and teachers in Nepal, ANMA organized one-day workshops in 'Short course in curve tracing' in 2011. The workshops were organized in conjunction with the local mathematical associations of Nepal. The first workshop was organized jointly with Nepal Mathematics Center (NMC) in Kathmandu on May 16, 2011 and the second workshop was organized with Chitwan Mathematical Forum in Bharatpur, Chitwan on May 21, 2011. More than 150 participants were gathered on May 16 - workshop while more than 50 participated on May 21 - workshop. Durga Jang KC, Deepak Basyal and Kailash Ghimire



presented on topics on curve sketching using several methods. Deepak Basyal demonstrated graphing techniques using TI calculators. This was for the first time that Nepalese mathematicians got exposed to graphing calculators. Texas Instruments donated these calculators to ANMA. Kailash Ghimire demonstrated various graphing techniques related to derivatives.

On June 22, 2013, about 100 mathematics community members in Nepal were gathered in Kathmandu Model college



for one-day workshop 'Mathematics: Research and Teaching with Technology'. The workshop highlighted information about the scope of applied mathematics research and opportunities as well as numerical integration techniques with proper technology in classrooms via lectures and panel discussion. The panel discussion of the program also provided insights on current research trends in the fields of applied mathematics. Furthermore, the panelists answered the questions raised by perspective graduate students for US institutions. The workshop was highly admired and the participants showed interests in the similar programs in the future.

The fundraising program – ANMA Dinner – was conducted in January 2014 at the Lumbini Restaurant, Baltimore, and in January 2016 at the Everest Kitchen, Seattle, raising the total amount of US \$225. Among other activities, ANMA has also initiated library project with ONE-DARAJ library in Kathmandu Model College in 2011.

ANMA Fundraising for Earthquake Victims in Nepal

- *Dr. Netra Khanal*

Background

On April 25, 2015 Nepal was hit by a catastrophic 7.8 magnitude earthquake that rattled the very core of the Nation. Furthermore, the initial quake was followed by multitude of aftershocks that left the country devastated and its infrastructures severely paralyzed. This tragic incident has caused a widespread devastation to the already poverty-stricken country. We watched the news of the demolition of Dharahara with tears rolling down our eyes; once proud and tall symbol of Kathmandu, now lay in ruins. Likewise, numerous other historical and religious monuments were razed to the ground. Although we may be able to rebuild the monuments and the structures, the worst reality is that we will never be able to bring back the lives of more than 10,000 brothers and sisters that perished during the quake. While our motherland suffered on the other side of the globe, we felt the pain here in the United States.

We cannot fight the nature to avoid this disaster. Nonetheless, we can come together to help thousands of those that have been injured and affected due to this disaster. With whole hearted pain and desires for offering help, we called an immediate emergency meeting of the ANMA. After a session of brainstorming and the commitment of all involved to help for the cause, we instantly raised \$1,000 from generous Executive Committee Members, and created a PayPal account for ANMA Earthquake fund-raising project. Right after the meeting, a group of people came together and worked continuously for hours to plan fundraising strategies, and the vigorous efforts for fund raising were immediately put forwards. All executive members of ANMA deserve sincere gratitude for putting together their thoughts and ideas to help the cause. I will summarize below some of the activities of ANMA related to this fund-raising project.



Fundraising Strategy

This was the first time we had ever tried to raise funds of this proportion for any cause. It was incredibly touching to see the generosity, dedication and teamwork of the Nepalese Mathematicians who came together to make this fundraising mission a success. No doubt, the recipe for success was the selfless act of kindness with our common goal to help the people in need.

On the third day after devastation, all of us began to contact our employers, colleagues, and friends asking their financial help. For example, in my university, the University of Tampa, I requested support from the Dean of my college, the Provost, and all members of the Mathematics Department. In addition to the generous support from each and every one of them, I was also humbled to acknowledge their concerns about my family back in Nepal. The University also decided to install many fundraising locations on campus, and the collected fund at this campus was donated to Nepal through Red Cross. We also contacted American Mathematical Society and Society for Mathematical Biology for their support. In addition, many of our members also visited Schools, Temples, and Churches in the USA to

request help for this cause. As a result of our continuous effort for two months, we were able to raise the total amount of US \$9,157 in our PayPal account.

Fund Disbursement

One of our biggest challenges was to make the fund reach the rightful victims. For proper investigation, transparency, and unbiased decision making, we divided the volunteers into teams to segregate the duties and responsibilities to effectively oversee the fund collection and relief process and narrow down the list of the prospective NGO's. Different teams researched, deliberated, decided and implemented on the rightful and credible NGOs. After series of discussions, we decided to handover the collected amount to Help Nepal Network (HNN) for long-term school construction project.



Acknowledgement

I understand that we are all busy with our own work, families, and other commitments. But our community members carved out some time out of their busy schedule and participated collectively for the fundraising activities. On behalf of ANMA, and also personally, I would like to thank all Nepalese Mathematicians from America and other parts of the world for their tremendous supports. We would also like to

thank all the actively involved helping hands that made this fundraising campaign successful.

Conclusion and Future

I was amazed to see all Nepalese working day and night, while juggling their family and professional life, to help the earthquake victims in Nepal. I am sure that many of us while growing up has seen our parents, grandparents, and teachers reciting the words "*Seva nai Dharma Ho*". After seeing efforts and willingness during the fundraising events, I can proudly say that despite being far away from our birthplace, we have safely kept those four words in our hearts. Each one of us, no matter where we live, has contributed and is willing to contribute to our motherland with the best of our abilities.

The journey does not end here. Today, our country is in dire need of our continuous support. Therefore, it demands us to continue to work together to offer further help and support to Nepal. We understand that the government of Nepal is working hard from its side to bring the country back to normalcy. However, in order to make Nepal a vibrant, prosperous and peaceful country again, Nepal Aama (mother) will need all her sons and daughters in Nepal and abroad to join hands together in harmony to rebuild the currently fragile nation.

Congratulations to ANMA Members!!!

- ❖ Dr. Mitra Devkota awarded with a prestigious "The Board of Trustees Distinguished Teaching Award" on May 7, 2016 from the Board of Trustees of Shawnee State University.
 - ❖ Dr. Deepak Basyal received the "Instructor of the year 2016 award" on April 29, 2016 from the University of Wisconsin-Marinette.
 - ❖ Bhikhari Tharu accepted a position as Assistant Professor of Mathematics at Spelman College, Atlanta, Georgia.
 - ❖ Dr. Lokendra Paudel will begin his new position as Assistant Professor of Instruction at University of Akron, Ohio starting Fall 2016.
 - ❖ Buddhi Raj Pantha will begin his position as Assistant Professor of Mathematics at Abraham Baldwin Agricultural College, Georgia.
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An Effort to Modernize Mathematics Teaching in Nepal

- *Marian Prince**



I had just retired from teaching mathematics and science in Michigan Public Schools and finally finished a doctorate in Curriculum and Instruction. “What now?” was my fervent prayer. Whether it was an answer to prayer or a crazy idea, I became the founder and director of Charitable Calculators, a non-profit organization, in early 2011. The Charitable Calculators collects donations of used calculators, which it re-donates them to schools that are in need.

Sometime in March 2011, I received a phone call from a PhD candidate of mathematics in New Mexico State University, requesting 250 TI-84+ graphing calculators for the teachers in Nepal. Dismayed that I only had 12 calculators in the inventory to offer, I wondered what was behind this urgent request. After several phone conversations with Dr. Deepak Basyal, now assistant professor of mathematics at University of Wisconsin-Marinette, I was introduced to the world of mathematics education in Nepal, and, through phone conversations with Dr. Basyal and Mr. Yuvraj Sharma, I sought grant opportunities to help purchase graphing calculators for interested schools in Nepal. This was the basis for a project entitled “Mathematics for New Nepal”.

Unfortunately, the most of the grant opportunities in the U.S. were for the education and health of Nepali infants to preschool age, and the chance to supply Nepali teachers with calculators seemed to slip away.



December 2012: Sixth year Scholars' Home Academy students use the TI-92 graphing calculators for the first time (Hari Narayan Upadhyaya, Director).

calculators were donated to the math department of Scholars' Home Academy. In the same week, a demonstration of the TI-Nspire CX calculator



May 2011: At the ANMA and HISSAN Conference in Kathmandu, Dr. Basyal presented the TI-83/84 to educators.



However, when box loads of TI-92 calculators were donated to Charitable Calculators a month later, I knew that they could be used by schools in Nepal. Thus began three different opportunities over the next four years to train mathematics teachers at Himalayan White House International College and Scholars' Home Academy. In December 2012, TI-92 graphing

took place at Himalayan White House International College, organized by Mr. Yuvraj Sharma, President, with 30 mathematics teachers from the Kathmandu area in attendance. This was the first look for these teachers into an instructional tool that could be used to help present mathematical concepts with multiple representations—numeric, graphic, symbolic, and verbal.

In December 2014, TI-Nspire calculators were brought to Scholars' Home Academy and Himalayan White House International College mathematics teachers. Training occurred for these teachers over three days in which they gained skills to present classroom activities using the handheld technology to teach a variety of lower secondary and higher secondary mathematics topics. In addition to helping mathematics education, graphing calculator technology can also be used in science education when combined with data collection probes.

Needing to eliminate its inventory as part of closing down, Charitable Calculators also donated sensors that work with TI-84+ graphing calculators to the same two schools and trained the science teachers in December 2015 in how to use temperature, voltage, light intensity, magnetic field, and other assorted sensors in their classrooms.

It was a pleasure and an honor working with the teachers and students of Nepal. Whatever more I can do to contribute to mathematics and science education in Nepal, I would be honored to do so.



December 2014: At Himalayan White House International College, grade 10 students study quadratic functions on the TI-Nspire graphing calculator.



December 2015: Science teachers at Himalayan White House College measure the magnetic field of a radio speaker.

** Dr. Marian Prince is an adjunct Faculty at Andrews University, Michigan and is a founder and director of the non-profit organization 'Charitable Calculators'.*

<u>ANMA Life Members</u>		
Acharya, Bibek	Ghimire, Kailash	Pantha, Buddhi
Acharya, Gangadhar	Giri, Sunil	Paudel, Lokendra
Adhikari, Dhruva	Joshi, Hemraj	Paudyal, Bhupendra
Adhikari, Hari	Kafle, Bir	Pokhrel, Krishna
Adhikari, Kamal	Kafle, Ram	Pokhrel, Keshav
Aryal, Gokarna	Kaphle, Krishna	Poudyal, Chudamani
Aryal, Pradip	Karki, Manoj	Rimal, Binod
Banjade, Debendra	Karna, Basant	Shrestha, Khim
Basyal, Deepak	Kasti, Dinesh	Subedi, Kusum
Bhandari, Mukta	Khadka, Bal K.	Subedi, Krishna
Bhatt, Ghanshyam	Khanal, Harihar	Thapa, Narayan
Bhatta, Dilli	Khanal, Netra	Thapa, Mohan
Bhusal, Bikram	Koirala, Hari	Thapa Magar, Krishna
Dahal, Keshav	Koirala, Sita	Thapa Magar, Surya
Dahal, Koshal	Nepal, Kedar	Tharu, Bhikhari
Dahal, Rajendra	Neupane, Ram	Upadhaya, Jiblal
Devkota, Mitra	Paneru, Khyam	Upadhyay, Tulsi
		Vaidya, Naveen

**Current ANMA
Executive Committee**

President
Dr. Dhruva Adhikari

Vice-Presidents
Dr. Naveen Vaidya
Dr. Deepak Basyal

General Secretary
Dr. Keshav Pokhrel

Treasurer
Dr. Debendra
Banjade

Members
Dr. Netra Khanal
Dr. Kailash Ghimire
Dr. Rajendra Dahal
Mr. Bal Khadka

International Conference on Applications of Mathematics to Nonlinear Sciences

(AMNS-2016)

May 26-29, 2016
Kathmandu, Nepal

<http://anmaweb.org/AMNS-2016>

Association of Nepalese Mathematicians in America (ANMA), Nepal Mathematical Society (NMS) and mathematics departments of Tribhuvan University and Kathmandu University are jointly organizing the *International Conference on Applications of Mathematics to Nonlinear Sciences (AMNS-2016)* in Kathmandu, Nepal, on May 26-29, 2016. The conference provides a forum to a diverse group of scientists in applications of mathematics to natural and health sciences, engineering and finance. Specific areas include analysis, topology, mathematics education, statistics, big data, optimization, operations research, quantitative finance, mathematical biology, biomedical science, biophysics, and public health. The conference intends to bring together researchers from a variety of disciplines, which impact nonlinear analysis and applications in bio- and physical sciences from the south-east Asian countries and around the globe.