

ANPA CONFERENCE 2020

July 17-19, 2020

July 17, Friday (Evening)

Session - I: Applied Physics (Webex I)

Time (ET)	Chair: Conrad Rizal
7:00 PM-7:30 PM	Tara Dhakal , Invited <i>Binghamton University, Binghamton, USA</i> Title: Recent Progress in Thin Film Perovskite Solar Cells
7:30 PM-7:42 PM	Rajesh Pathak (NL_S) <i>South Dakota State University, USA</i> Title: Artificial layer to suppress the lithium dendrite growth in lithium metal batteries
7:42 PM-7:54 PM	Rupak Timalisina (NL_S) <i>Northern Arizona University, USA</i> Title: OptoMechanical cooling in an optical fiber

Break


Focus Session - I: Physics Education Research (Webex I)

Time (ET)	Chair: Rudra Kafle
8:00 PM-8:12 PM	Rijendra Thapa <i>Kathmandu World School (KWS), Nepal</i> Title: Assessment of effectiveness of virtual simulation for tutoring introductory level Physics based on the syllabus of Nepal Education Board (NEB)
8:12 PM-8:42 PM	Ramesh Dhungana <i>University of Colorado, USA</i> Title: Quantitative critical thinking with interactive labs
8:42 PM-9:12 PM	Bijaya Aryal <i>University of Minnesota Rochester, USA</i> Title: Innovating Physics Instruction to Promote Student Learning of Skills

9:12 PM-9:42 PM	Mahendra Thapa <i>California State University, USA</i> Title: Experiences of promoting equity and diversity in physics teaching & learning
Break	
Keynote Talk (Webex I)	
Time (ET)	Chair: Yadav Pandit
10:00 PM-11:00 PM	Umeshwar Prasad Joshi <i>Fermi National Accelerator Laboratory, USA</i> Title: Our Teachers and Mentors: We owe them!
Break	
Session - II: AMO/Plasma Physics (Webex I)	
Time (ET)	Chair: Shambhu Ghimire
11:10 PM-11:40 PM	Milan P Poudel , Invited <i>Raytheon Technologies & Texas A&M University, USA</i> Title: Advances on Femtosecond Laser Frequency Comb and Its applications
11:40 PM-11:52 PM	Madhav Dhital (S) <i>Missouri University of Science and Technology, USA</i> Title: Fully Differential Study of the Post-Collision Interaction in the Few-Body Dynamics of Simple Atomic Systems
11:52 PM-12:04 AM	Anish Maskey (S) <i>Tribhuvan University, Nepal</i> Title: Effect of DC biased voltage and temperature on bounded ion-ion plasma
12:04 AM-12:16AM (Saturday)	Atit Deuja (S) <i>Tribhuvan University, Nepal</i> Title: Particle-in-Cell Modeling of Plasma Interaction on the Collector Surface
Break	
12:21 AM-12:33 AM	Binayak Bhulun Lama (S) <i>Patan Multiple Campus, Nepal</i> Title: Study of dusty plasma properties in presence of non-maxwellian electrons
12:33 AM-12:45 AM	Narendra Chaudhary (S) <i>Patan Multiple Campus, Nepal</i> Title: Treatment of water by ozone produced in cylindrical dielectric barrier discharge

12:45 AM-12:57 AM	Oat bahadur dhakal (Rajkumar) (S) <i>Patan Multiple Campus, Nepal</i> Title: Experimental study of the plasma parameters using arc discharge method and seeded arc discharge method at atmospheric pressure
12:57 AM-01:09 AM	Roshani Dahal (S) <i>Patan Multiple Campus, Tribhuvan University, Nepal</i> Title: Study of multi-component plasma sheath using kinetic trajectory simulation by varying ion temperature
1:09 AM-1:21 AM	Suresh Basnet (S) <i>Tribhuvan University, Nepal</i> Title: Electronegative magnetized plasma-wall transition in the presence of two populations of electrons using kinetic theory

July 18, Saturday (Morning)

Session - III: Astrophysics (Webex I)		Session - IV: Condensed Matter (Webex II)	
Chair:		Chair: Kapil Adhikari	
8:00 AM-8:12 AM	Angel Bashyal (S) <i>Golden Gate Int'l College, Nepal</i> Title: Orbital dynamics of hypothetical exomoons around a Jupiter-type exoplanet, Laligurans.	8:00 AM-8:30 AM	Madhav Prasad Ghimire, Invited <i>Tribhuvan University, Nepal</i> Title: Realization of Dirac Fermions and Flat bands in Kagome Metal FeSn
			
8:12 AM-8:24 AM	Agrima Nana Shrestha (S) <i>Amrit Campus, Nepal</i> Title: Electronic Structure Calculation Of Some Interstellar Molecules	8:30 AM-8:42 AM	Tej B. Limbu (S) North Carolina Central University, USA Title: Surface-engineered Ti3C2Tx MXene with Enhanced Conductivity, Oxidation Stability, and Surface-enhanced Raman Scattering Activity
8:24 AM-8:36 AM	Alisha Paudel (S)	8:42 AM-8:54 AM	Alisha Budhathoki (S) <i>Tribhuvan University, Nepal</i>

	Prithvi Narayan campus, Nepal Title: Electronic Structure Calculation Of Some Interstellar Molecules		Title: First Principles Investigation on the Electronic and Magnetic Properties of Kagome System: ScFe ₆ Ge ₄
8:36 AM-9:06 AM 	Rishi R. Paudel , Invited NASA Goddard Space Flight Center, University of Maryland, USA Title: A study of white light flares on M dwarfs	8:54 AM-9:06 AM	Alok Lal Karn (S) Tribhuvan University, Nepal Title: Electronic and Magnetic related properties Of MXene and corresponding MAXphase
9:06 AM-9:18 AM	Ashok Silwal (S) Patan Multiple Campus, Nepal Title: GPS Observations of Ionospheric TEC Variations During the 26th December 2019 Solar Eclipse	9:06 AM-9:18 AM	Prena Chaudhary (S) Tribhuvan University, Nepal Title: To study doping effect of vanadium on electronic and magnetic properties of full heusler alloy Co ₂ FeAl.
9:18 AM-9:30 AM	Babu Ram Sharma (S) Prithvi Narayan Campus, Nepal Title: The location of solar metric type ii radio bursts and associated coronal mass ejections	9:18 AM-9:30 AM	Anjila Ghimire (NL_S) Tribhuvan university, Nepal Title: Fabrication of ammonia gas sensor using zinc oxide(zno) thin film and polymer gate dielectric
9:30 AM-9:42 AM	Basu Dev (NL_S) Tribhuvan University, Nepal Title: Ionospheric Perturbations Due to MEXICO Earthquakes as Measured from GPS-TEC Data	9:30 AM-9:42 AM	Bibek S Dhimi (S) University of Alabama at Birmingham, USA Title: Carrier dynamics in Perovskite microstructures
9:42 AM-9:54 AM	Bhogendra Kathayat (S) Tribhuvan University, Nepal Title: Long-term atmospheric visibility variation in two cities of West Nepal (1977-2020): A proxy for local and regional atmospheric aerosol loads	9:42 AM-9:54 AM	Nikesh Maharjan (S) Brooklyn College CUNY, USA Title: Luminescence properties and Chemical composition Analysis of Residual Impurities in Hexagonal boron nitride

Break

Focus Session - II: Research Collaboration and Scientific Publication

(Webex I)			
Time (ET)		Chair/Moderator: Mim L. Nakarmi	
10:10 AM-11:10 AM		Discussion Topic: Research collaboration within Nepalese physicists to promote research activities in Nepal Panelists: Prem Chapagain (<i>Florida International University, USA</i>) Madhab Neupane (<i>University of Central Florida, USA</i>) Narayan Chapagain (<i>Tribhuvan University, Nepal</i>) Lila Pradhan (<i>Tribhuvan University, Nepal</i>)	
Break			
11:20 AM-11:50 AM		Bishwonath Gaire <i>Nature Publications</i> Title: Strategies for publication of research articles in Nature journals	
Break			
July 18, Saturday (Afternoon)			
Session - V: Astrophysics (Webex I)		Session - VI: Condensed Matter (Webex II)	
Chair: Suman Satyal		Chair: Shyam Kattel	
12:00 PM-12:12 PM	Manish Khanal (S) <i>Amrit Campus, Nepal</i> Title: A comparative study of physical properties around asymptotic giant branch star: iras 01142+6306 in iris and akari map	12:00 PM-12:12 PM	Dev Raj Joshi (S) <i>Tribhuvan University, Nepal</i> Title: Electricity Generated by Sound Energy Based on the Soundelectric Effect
12:12 PM-12:24 PM	Megh Nath Upadhyay (S) <i>Tribhuvan University, Nepal</i> Title: Formulating a Methodology to Calculate Local Sunrise-Sunset Times in Nepal	12:12 PM-12:24 PM	Deependra Parajuli (S) <i>Nepalese Society of Microscopy, Nepal</i> Title: Structural, Morphological, Magnetic and DC resistivity studies of Cu substituted Ni-Zn ferrite

12:24 PM-12:36 PM	Drabindra Pandit (S) <i>Tribhuvan University, Nepal</i> Title: Analysis on the North-South Component of Geomagnetic Field with the Interplanetary Magnetic Field during Intense Geomagnetic Storms of 22 June 2015 and 25 August 2018	12:24 PM-12:36 PM	Chandra Mani Adhikari <i>North Carolina Central University, USA</i> Title: Optical response of ultra-thin carbon nanotube films
12:36 PM-12:48 PM	Ganga Prasad Adhikari (S) <i>Tribhuvan University, Nepal</i> Title: Determination of Sunrise and Sunset times for Bhairahawa airport, Nepal.	12:36 PM-12:48 PM	Dina Michel (S) <i>George Mason University, USA</i> Title: Tuning Topological Properties by Chemical Substitution in CoNb3S6
12:48 PM-1:00 PM	Janak Ratna Malla (S) <i>Amrit Campus, Nepal</i> Title: Spatial orientations of angular momentum vectors of galaxies in Supercluster S [173+014+0082]	12:48 PM-1:00 PM	Dipendra Dahal <i>North Carolina Central University, USA</i> Title: Effect of strain on plasmons, screening, and energy loss in graphene/substrate contacts
1:00 PM-1:12 PM	Dev Joshi <i>The University of Scranton, USA</i> Title: The dependence of the Irregularity parameter characterizing the Equatorial Ionospheric Irregularities on the background ionospheric density	1:00 PM-1:12 PM	Firoza Kabir (S) <i>University of Central Florida, USA</i> Title: Observation of topological surface state in gadolinium-doped Sb2Te3
1:12 PM-1:24 PM	Dev R Sadaula (S) <i>Western Michigan University, USA</i> Title: Time Dependent Photo-Ionization of Warm Absorbers Found in Active Galactic Nuclei.	1:12 PM-1:24 PM	Ganesh Pokharel (S) <i>The University of Tennessee, USA</i> Title: Inelastic neutron scattering study of the lacunar spinel GaV4S8
Break			
ANPA Annual General Meeting (2:00-3:00 PM)			
Break			
July 18, Saturday (Evening)			

Session - VII: Bio/Soft Matter (Webex I)

<i>Time (ET)</i>	<i>Chair: Soma Dhakal</i>
7:30 PM-8:00 PM	Kamal Dhakal , Invited <i>Abbvie Inc., USA</i> Title: Restoring Vision to the Blind-Optogenetics
8:00 PM-8:12 PM	Lalit Chudal(S) <i>The University of Texas at Arlington, USA</i> Title: Copper-Cysteamine Nanoparticles as a Heterogeneous Fenton-Like Catalyst for Highly Selective Cancer Treatment
8:12 PM-8:24 PM	Nawal K. Khadka (NL) <i>Boise State University, USA</i> Title: Discrimination and Characterization of Cholesterol Bilayer Domain using Atomic Force Microscopy
8:24 PM-8:36 PM	Deepak Koirala <i>The University of Chicago, USA</i> Title: Determining RNA 3-dimensional structures using X-ray crystallography
8:36 PM-8:48 PM	Prakash Shrestha (S) <i>Harvard Medical School and Boston Children's Hospital, USA</i> Title: Single-Molecule 3D Structure Reconstruction of a Protein Complex using DNA Nanoswitch Calipers
Break	
9:00 PM-9:30 PM	Krishna Sigdel , Invited <i>Cal Poly Pomona, USA</i> Title: Insights into Protein-Membrane Interactions via Atomic Force Microscopy
9:30 PM-9:42 PM	Raju Timsina (NL) <i>Boise State University, USA</i> Title: Association of α -crystallin with the phospholipid membrane: A DLS study
9:42 PM-9:54 PM	Ram Poudel <i>International Association for the Integration of Science and Engineering (IAISAE), USA</i> Title: The evolution of cooperative behavior in human
9:54 PM-10:06 PM	Samuel Haralu (NL_S) <i>Campbellsville University, USA</i> Title: Probing Structural Dynamics of Potassium Channel Accessory Protein KCNE3 using EPR Spectroscopy and Molecular Dynamics Modeling

10:06 PM-10:18 PM	Swapnil Baral (S) <i>University of Delaware, USA</i> Title: Predicting Spectral Properties of Polarity Sensitive Dyes with QM/MM Simulation		
Break			
Session - VIII: Bio/Soft Matter (Webex I)		Session - IX: Data Science (Webex II)	
Chair: Krishna Neupane		Chair: Santosh KC	
Time (ET)		Time (ET)	
10:30 PM-10:42 PM	Nil Pandey (S) <i>The University of Texas at Arlington, USA</i> Title: Rapid and Efficient Degradation of Organic Pollutants by Catalytic Oxidation using Copper-Cysteamine Nanoparticles	10:30 PM-11:00 PM	Pere Miro , Invited <i>University of South Dakota, USA</i> Title: Quantum computing: basics to implementation
10:42 PM-10:54 PM	Manoj Kumar Chaudhary (S) <i>Tribhuvan University, Nepal</i> Title: Structural, spectroscopic (IR and Raman) and physicochemical properties of Ricobendazole, from experimental and computational approach	11:00 PM-11:12 PM	Aman Ganeju (S) <i>Khwopa College, Nepal</i> Title: Implementation of Quantum Fourier transform on Shor's algorithm
10:54 PM-11:06 PM	Ankit BK (S) <i>Tribhuvan University, Nepal</i> Title: Analysis of iron content in selected vegetarian food items in Pokhara.	11:12 PM-11:24 PM	Dibakar Sigdel <i>University of California, Los Angeles, USA</i> Title: Data science in personalized medicine
11:06 PM-11:18 PM	Rajendra Prasad Koirala <i>Tribhuvan University, Nepal</i> Title: Repair Mechanism of Methyl Lesion in DNA Transferring Methyl Adduct		

	to O6-alkylguanine-DNA alkyl transferase (AGT)		
Break			
Session - X: Condensed Matter (Webex I)			
Time (ET)	Chair: Gopi Kafle		
11:30 PM-12:00 AM	Tula Poudel , Invited <i>University of Nebraska–Lincoln, USA</i> Title: Spin Filtering in Two-Dimensional Magnetic Tunnel Junctions		
12:00 AM-12:12 AM	Hari Krishna Neupane (S) <i>Amrit Campus, Nepal</i> Title: Structure, Electronic and Magnetic Properties of 2D Graphene-Molybdenum diSulphide (G-MoS ₂) Heterostructure (HS) material with Vacancy Defects at C Sites		
12:12 AM-12:24 AM	Karan Giri (S) <i>Tri-Chandra Multiple Campus, Nepal</i> Title: Study of damage profiles and calculation of energy loss in Gallium ion implantation on Germanium substrate.		
12:24 AM-12:36 AM	Pratikshya Gautam (S) <i>Prithivi Narayan Campus, Nepal</i> Title: Study On Spin/States Of Silican Carbide Nanotube		
12:36 AM-12:48 AM	Raj Kumar Rai (S) <i>Tribhuvan University, Nepal</i> Title: First-Principle Study of the Filling Control Effect of Electronic Structure and Transport Properties of Heterostructure of (La,Ca)VO ₃		
12:48 AM-01:00 AM	Amba Datt Pant <i>High Energy Accelerator Research Organization Institute of Materials Structure Science (IMSS), Japan</i> Title: Life Science Studies with Muons		
Break			
July 20, Sunday (Morning)			
Session - XI: Astrophysics (Webex I)		Session - XII: Condensed Matter (Webex II)	

<i>Chair: Suman Satyal</i>		<i>Chair: Pashupati Dhakal</i>	
<i>Time (ET)</i>		<i>Time (ET)</i>	
8:00 AM-8:12 AM	Monika Karki (NL_S) <i>Amrit Campus, Nepal</i> Title: Analysis of Total Electron Content Using GPS Observations During 2015 Mw 7.8 Nepal Earthquake	8:00 AM-8:30 AM	Hem Raj Sharma , Invited <i>The University of Liverpool, UK</i> Title: Quasicrystals with Crystallographic Rotational Symmetry
8:12 AM-8:24 AM	Nishan Lamichhane (S) <i>Tribhuvan University, Nepal</i> Title: Optical spectroscopy in determining the mass of Messier 87.	8:30 AM-8:42 AM	Gyanendra Dhakal (S) <i>University of Central Florida, USA</i> Title: Observation of distinct topological superconducting state in CaBi ₂
8:24 AM-8:36 AM	Prakash Man Shrestha (S) <i>Patan Multiple Campus, Nepal</i> Title: Study of Variability of Atmospheric Ozone over Jumla in Half Period of 24 Solar Cycle	8:42 AM-8:54 AM	Luis Persaud (S) <i>University of Central Florida, USA</i> Title: Application of Edge Detection Techniques to the Analysis of Spectroscopic Data
8:36 AM-8:48 AM	Ram Krishna Tiwari <i>Tribhuvan University, Nepal</i> (S) Title: Study of ray path distribution to generate travel time curve for seismic wave produced by 25 April 2015, Gorkha earthquake (Mw 7.8) and its largest aftershock of 12 May 2015 (Mw7.3)	8:54 AM-9:06 AM	Sabin Regmi (NL_S) <i>University of Central Florida, USA</i> Title: Temperature Dependent Electronic Structure in a Higher Order Topological Insulator Candidate EuIn ₂ As ₂
8:48 AM-9:00 AM	Utsav Siwakoti (S) <i>Tribhuvan University, Nepal</i> Title: A comparative study of physical properties around ngc7293 nebula in iris & akari map	9:06 AM-9:18 AM	Mohan Bhattarai (S) <i>University of Puerto Rico, USA</i> Title: A review of relaxor ferroelectric materials for energy storage applications
9:00 AM-9:12 AM	Sujan Prasad Gautam (S) <i>Tribhuvan University, Nepal</i> Title: Study of Star Formation Rate of Tidal Dwarf Galaxies	9:18 AM-9:30 AM	Bishnu Pokhrel (S) <i>Prithvi Narayan Campus, Nepal</i> Title: Density functional theory study on electronic properties of methane hydrate

9:12 AM-9:24 AM	Suresh Bhattarai <i>Nepal Astronomical Society (NASO), Nepal</i> Title: All-Nepal Asteroid Search Campaign: Opportunity to Discover Asteroids from Nepal	9:36 AM-9:48 AM	Aabiskar Subedi (S) <i>Prithivi Narayan Campus, Nepal</i> Title: Study the mechanochemistry of silicon carbide nanoribbon (sicnrs) by using first principle
			Break
9:24 AM-9:36 AM	Usha Joshi (S) <i>Patan Multiple Campus, Nepal</i> Title: Impacts of Sunshine Hour, Ambient Temperature and Relative Humidity on Total Solar Radiation at Mid Hill Region, Nepal	Session - XIV: Condensed Matter (Webex II)	
	Break	Chair: Pashupati Dhakal	
Session - XIII: Nuclear Physics (Webex I)		10:00 AM-10:12 AM	Ram Babu Ray (S) <i>Tribhuvan University, Nepal</i> Title: Electronic Structure, Magnetic Properties and Strain Effects of Quaternary Heusler Compounds ZrRhTiIn and ZrRhTiAl.
Chair: Dilli R. Paudyal			
9:50 AM-10:02 AM	Abishek Karki (S) <i>Mississippi State University, USA</i> Title: EMC ratios in Lighter Nuclei	10:12 AM-10:24 AM	Youbraj Paudel (S) <i>Tribhuvan University, Nepal</i> Title: A first-principles study of structural, electronic and magnetic properties of chromium based binary alloys
10:02 AM-10:14 AM	Hem Bhatt (S) <i>Mississippi State University, USA</i> Title: Charge Symmetry Violation in Quark Distributions Using SIDIS	10:24 AM-10:36 AM	Sanjeev Kunwar (S) <i>Prithivi Narayan Campus, Nepal</i> Title: Study of surface modelling of carbon dioxide crystal
10:14 AM-10:26 AM	Bhawin Dhital (S) <i>Old Dominion University, USA</i> Title: Two-Energy Storage Ring Cooler for Future Electron-Ion Collider (EIC)	10:36 AM-10:48 AM	Saran Lamichhane (S) <i>Tribhuvan University, Nepal</i> Title: Electric field effect on electronic properties of H ₂ O adsorbed MoS ₂ /Graphene heterostructures
10:26 AM-10:38 AM	Anita Mishra (S) <i>Tribhuvan University, Nepal</i>	10:48 AM-11:00 AM	Shambhu bhandari sharma (S) <i>Tribhuvan University, Nepal</i>

	Title: Radiological assessment of Bagh Bhairav in Kirtipur, Nepal by in-situ gamma ray spectrometry		Title: First Principle Study of strain and electric field induced electronic properties and Optical properties of two dimensional heterolayers of planar SiC, SnC and GeC.
10:38 AM-10:50 AM	Pratiksha Shahi (S) <i>Tribhuvan University, Nepal</i> Title: Status of radiation facility in province no. 5 of nepal.	11:00 AM-11:12 AM	Shyam Prakash Khanal (NL_S) <i>Tribhuvan University, Nepal</i> Title: Molecular Dynamics Study of Amoxicillin in water
10:50 AM-11:02 AM	Rasmita Timalisina (S) <i>Tribhuvan University, Nepal</i> Title: Study of Longitudinal Dynamics of a Simple Linear Proton Accelerator Using MatLab	11:12 AM-11:24 AM	Sita Kandel (S) <i>Tribhuvan University, Nepal</i> Title: Structural, Electronic and Magnetic properties of Co/Mn based quaternary Heusler alloy
11:02 AM-11:32 AM	Suyog Shrestha, Invited <i>Ohio State University, USA</i> Title: Taking High Energy Physics to Higher Altitudes	11:24 AM-11:36 AM	Suresh Paudyal (S) <i>Tribhuvan University, Nepal</i> Title: Study of Electronic and magnetic properties of manganese based binary alloy.
Break		Break	
11:42 AM-11:52 AM	Umesh Silwal <i>University of Wyoming, USA</i> Title: Structure of ^{75}Ge nuclei from beta-decay spectroscopy	11:46 AM-11:58 AM	Tarani Prasad Yadav (NL_S) <i>Tribhuvan University, Nepal</i> Title: Structural Stability and Magnetic Moment of CuO at Different Morphologies: Ab-initio Approach
11:52 AM-12:04 PM	Shambhu Ghimire <i>SLAC National Accelerator Laboratory, USA</i> Title: Particle Accelerator Technology Enables Ultrafast X-ray Science	11:58 AM-12:10 PM	Thakur Bhandari (S) <i>Tribhuvan University, Nepal</i> Title: A first-principles study of electronic and magnetic properties of vanadium based binary alloys vas, vsb and vte.
12:04 PM-12:34 PM	Medani Sangroula <i>Brookhaven National Laboratory, USA</i>	12:10 PM-12:25 PM	Yogendra Limbu (S) <i>Tribhuvan University, Nepal</i>

	Title: The Electron-Ion Collider (EIC)		Title: Comparative study of functionalized mxene(ti2n, and ti2c)
The End			