

# CHETANATH NEUPANE

## PERSONAL DETAILS

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Email: chetanath.neupane@gmail.com ; Phone: +977-9842492200  
Personal Blog: <https://chetanathneupane.com.np>  
Marital Status :- Married to Radha Khanal (MA sociology, BA Law)  
Language Fluency: English, Nepali, Hindi

## EDUCATION

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**Masters of science in Physics at Tribhuvan University** 2016 - 2019  
(Completed with overall CGPA: **3.61** (out of 4) Specialization- **Astrophysics**

**M.Sc. thesis topic:** Study and visualization of molecular dynamics of oxy-myoglobin protein using PyMOL and UCSF Chimera.

-[Completed an elective course on **M.Sc. in Biomedical Physics (6 credit)**] 2017 - 2018

**Dean list merit result:** Ranked one in final exam of **M.Sc** 3rd semester conducted by **T.U.**(2017)  
- Grade: **GPA 4**(out of 4)

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**Bachelor of science in Physics at Tribhuvan University** 2010 - 2014  
[Completed with first division (62.43 percentage) ]

## RESEARCH PUBLICATIONS

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[1] Molecular structure properties of heme group in the oxymyoglobin protein (1mbo.pdb) using PyMOL UCSF Chimera; doi: **10.37256/nat.122020425**

Authors: **Chetanath Neupane**; Seeram Ramakrishna; Jeevan Jyoti Nakarmi; Binod Adhikari

[2] Urey-Miller experiment: route to the origin of life; an astrobiologist prospective (not peer reviewed/published in Researchgate)

## WORK EXPERIENCES AND AFFILIATIONS

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**Lecturer of physics for intermediate Level** 2019-Present  
(*Siddhartha College, Nepal*)

**Founding president** 2019- Present  
(*Centre for Astrobiology Research, Nepal*)

**Editorial member of the journal of iaps (jIAPS, France)** 2018 -2020  
(*International Association of Physics Students (iaps)*)

**Managing Editor of New Dimension Magazine** 2017-2018  
(*Department of Physics, St. Xavier's College, Nepal*)

**Lecturer of physics for intermediate Level** 2017-2018  
(*Xavier International College, Nepal*)

## RESEARCH INTERESTS

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Biophysics:- Molecular and computational biophysics, protein dynamics, MD simulations, spectroscopy

Astrobiology:- Origin of life and its possibility on other planets, habitability, RNA world, bio-signatures

Personal Interests: Cooking, Sports, traveling, blogging, exploring unknowns

## TECHNICAL SKILLS

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**Programming Languages :-** C/C++, Python

**Computer Software :-** UCSF Chimera, LaTeX, VMD, PyMOL, Quantum-Espresso

## TRAVEL FUNDS/AWARDS RECEIVED

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[1] Award: "CORONA WARRIOR" awarded by Project 100, India for the contribution in the fight with COVID-19.

[2] Travel and accommodation funds (approx. 2000 USD) provided by United Nations Office for Outer Space Affairs, UNOOSA for the presentation in International Conference organized in Pakistan.

[3] Travel and accommodation funds (approx. 1500 USD) provided by International Centre for Theoretical Physics, ICTP for the participation in workshop on Neutrino physics organized in Mumbai, India.

[4] Travel and accommodation funds provided by the organizer (Ncell and NAAMII) of First Nepal Winter School in AI (and ML)

## SCIENTIFIC TALK PRESENTATIONS CONDUCTED / PRESENTED

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**One day workshop on particle physics, universe and cosmology** 19 Dec, 2019  
*(Presented at Siddhartha College, Nepal)*

**Are we alone in this Universe?** 5 Nov, 2019  
*(Presented on the public event organized by Science for Society, Nepal)*

**Introduction to visualization of molecular dynamics of proteins** 19 Feb, 2019  
*(Presented to M.Sc. 3rd semester students of Biophysics, St. Xavier's College, Nepal)*

**Trends of space technology for water resource management in Nepal** 02 Mar, 2018  
*(Presented on the international conference organized by UNOOSA, Pakistan)*

**Positron Emission Tomography(PET); its applications and limitations** 22 June, 2017  
*(Presented to M.Sc. students of Biomedical Physics, St. Xavier's college, Nepal)*

**Introduction to Copenhagen interpretation in quantum mechanics** 12 Aug, 2016  
*(Presented to M.Sc. and B.Sc. students of Physics, St. Xavier's College, Nepal)*

## SCIENTIFIC WORKSHOPS AND CONFERENCES PARTICIPATION

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**Workshop on Research Writing and Publishing** 8-9, July, 2020  
*(Nepal Physical Society, Province-1, Nepal)*

**e-Conference on Recent Advances in Physics and Materials Science** 9-10, July, 2020  
*(Kursong College and St Joseph's College, India)*

**Experimental Computational Tools for Materials Research (ECTMR)** 1-8, June, 2020  
*(Department of Physics, Central University of Rajasthan, India)*

<b>International e-Conference on Emerging Trends in Bioscience and Technology</b> <i>(Organized by Sandip University, Nasik, India Biotechnology Society of Nepal (BSN)</i>	June, 2020
<b>Solid State Physics in Quarantine</b> <i>(Organized by Learning centre at ICTP, Italy and Prof. Sandro Scandolo)</i>	16 Apr-29 May, 2020
<b>Scientific Data Analysis With Python</b> <i>(Datanox, Australia)</i>	1-28,May, 2020
<b>Workshop on Quantum-Espresso and Data Visualizations</b> <i>(Organized by Kathmandu University(KU) and CMPRC, Nepal)</i>	1-2 May, 2020
<b>First Nepal Winter School in AI (and ML)</b> <i>(NepAl Applied Mathematics and Informatics Institute for Research, Nepal)</i>	20-30 Dec, 2018
<b>ICTP-IIT Bombay Workshop on Astrophysics and Neutrino Physics</b> <i>(Department of Physics, Indian Institute of Technology, India)</i>	14-18 Dec, 2018
<b>Training Workshop on Scientific Writing</b> <i>(Research Centre for Applied Science and Technology, RECAST UGC,Nepal)</i>	21-25 June, 2018
<b>Two day workshop on LaTeX”</b> <i>(Organized by Department of Physics, St. Xavier’s College)</i>	10-11 Dec, 2017
<b>South Asian High Energy Physics Instrumentation Workshop</b> <i>(Jointly Organized by Kathmandu University and CERN in Nepal)</i>	20-21 June,2017
<b>International Conference on Trends in Bio, Chemical, Physical Sciences</b> <i>(Organized by Biologix Research and Innovation Centre, India)</i>	9-11 Dec, 2016
<b>Four Day Workshop on LASER and Its Applications</b> <i>(Jointly Organized by Sogang University, Korea and St. Xavier’s College, Nepal)</i>	14-17, 2016

#### ONLINE COURSES ATTENDED - LOCKDOWN LEARNING

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<b>Creative Thinking: Techniques and Tools for Success</b> <i>(By Imperial College London)</i>	2020
<b>Health Systems Strengthening</b> <i>(By University of Melbourne, The Nossal Institute for Global Health and UNICEF)</i>	2020
<b>CLIMATE CHANGE: SOLUTIONS</b> <i>(By University of EXETER)</i>	2020
<b>Arts and Technology Teach-out</b> <i>(By University of Michigan)</i>	2020
<b>Digital Skills: Artificial Intelligence</b> <i>(By ACCENTURE)</i>	2019

#### REFERENCES

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- [1] Prof. Dr. Seeram Ramakrishna, Centre of Nanofibers and Nanotechnology, National University of Singapore, Singapore (email: seeram@nus.edu.sg)
- [2] Prof. Jeevan Jyoti Nakarmi, Professor of Physics T.U, Nepal (email: nakarmijj@gmail.com)
- [3] Dr.Binod Adhikari, Ass.Professor of Physics,St.Xavier’s College,Nepal (email: binod.adhi@gmail.com)