

# Erasmus Day 2020

FACULTY OF SCIENCE AND TECHNOLOGY  
**POKHARA UNIVERSITY**



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With the support of the  
Erasmus+ Programme  
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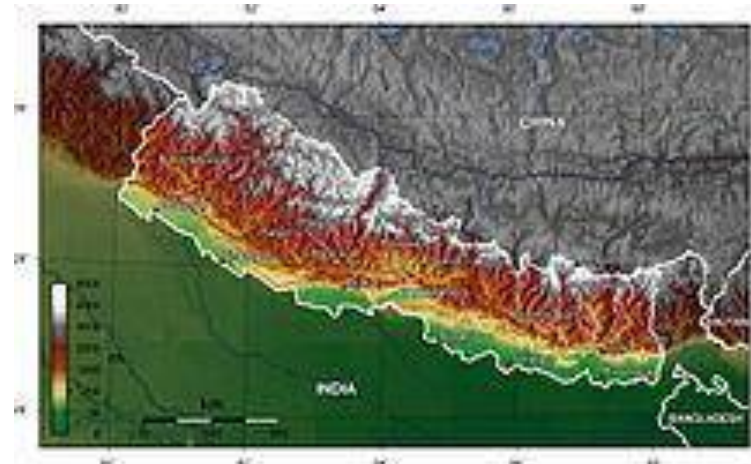


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## Introduction –Nepal

- ❖Nepal is Land Locked Asian Country
- ❖Federal Republic Country
- ❖Diverse geography including Fertile Plain , subalpine forested hills, and eight of the world's ten tallest Mountain including Mount Everest
- ❖Kathmandu is the capital and the largest city.
- ❖Nepal is a multiethnic country, Nepali as the official language.
- ❖Source of income : Agriculture , Tourism and remittance
- ❖Area :147,516 km<sup>2</sup>
- ❖Population 28,095,714( 28 Million )



Emblem







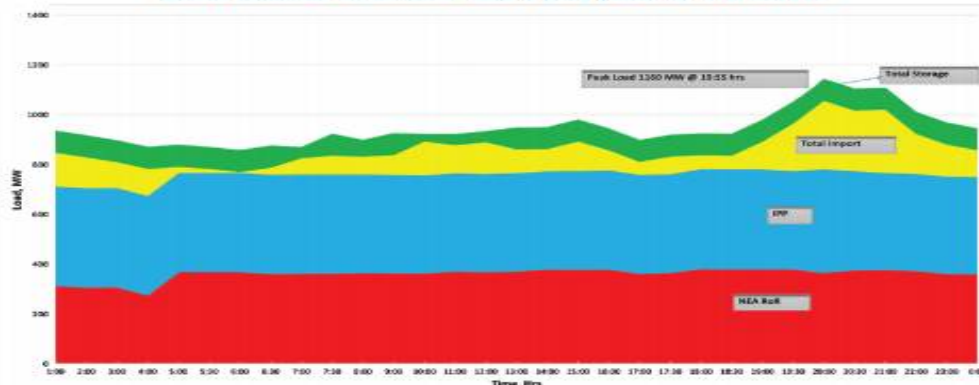
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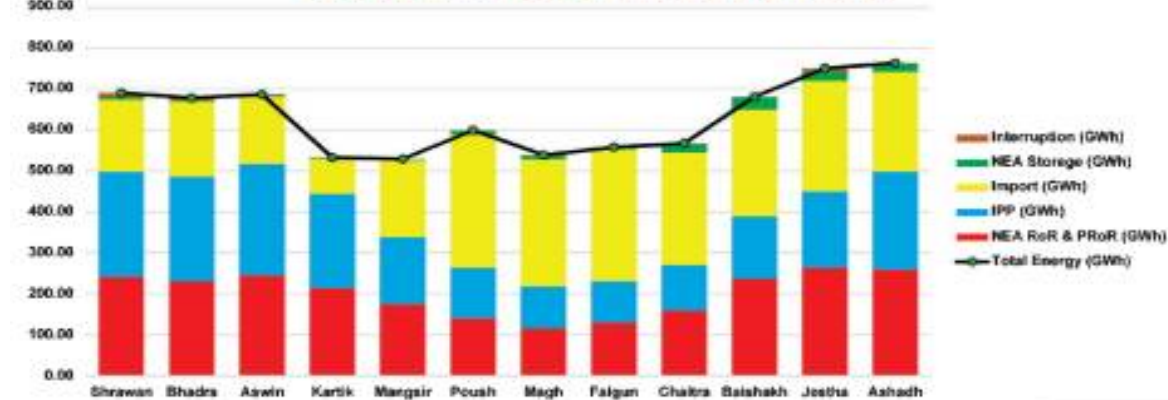
## Generation and Transmission Scenario –Nepal

- ❖ 2<sup>nd</sup> largest hydro potential in the world ( Main energy source is water)
- ❖ Total Installed Capacity 1200MW ( Government + Private sector )
- ❖ Under Construction 1000MW
- ❖ Proposed :2000 MW
- ❖ Transmission Facilities 132 KV -3000KM , 220 KV – 225 KM and 400KV – 78 KM
- ❖ Transmission Facilities Under-construction : 132KV -805 KM , 220KV -630KM and 400KV-576 KM
- ❖ Distribution Voltage: Industrial : 33KV , 11KV and Domestic Level 0.4KV

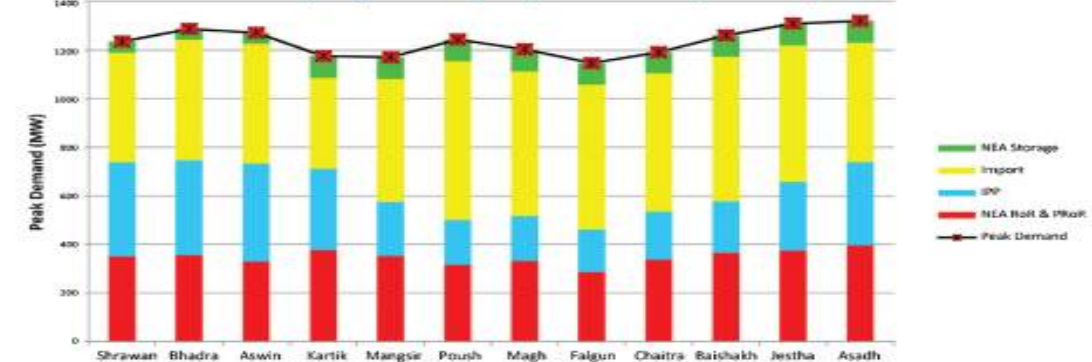
System Load Curve, Shrawan 4, 2076 (July 20, 2019) - Wet Season



Energy Balance (GWh) in FY 2075/76 (2018/2019)



Capacity Balance (MW) in FY 2075/76 (2018/2019)



System Loss (%)





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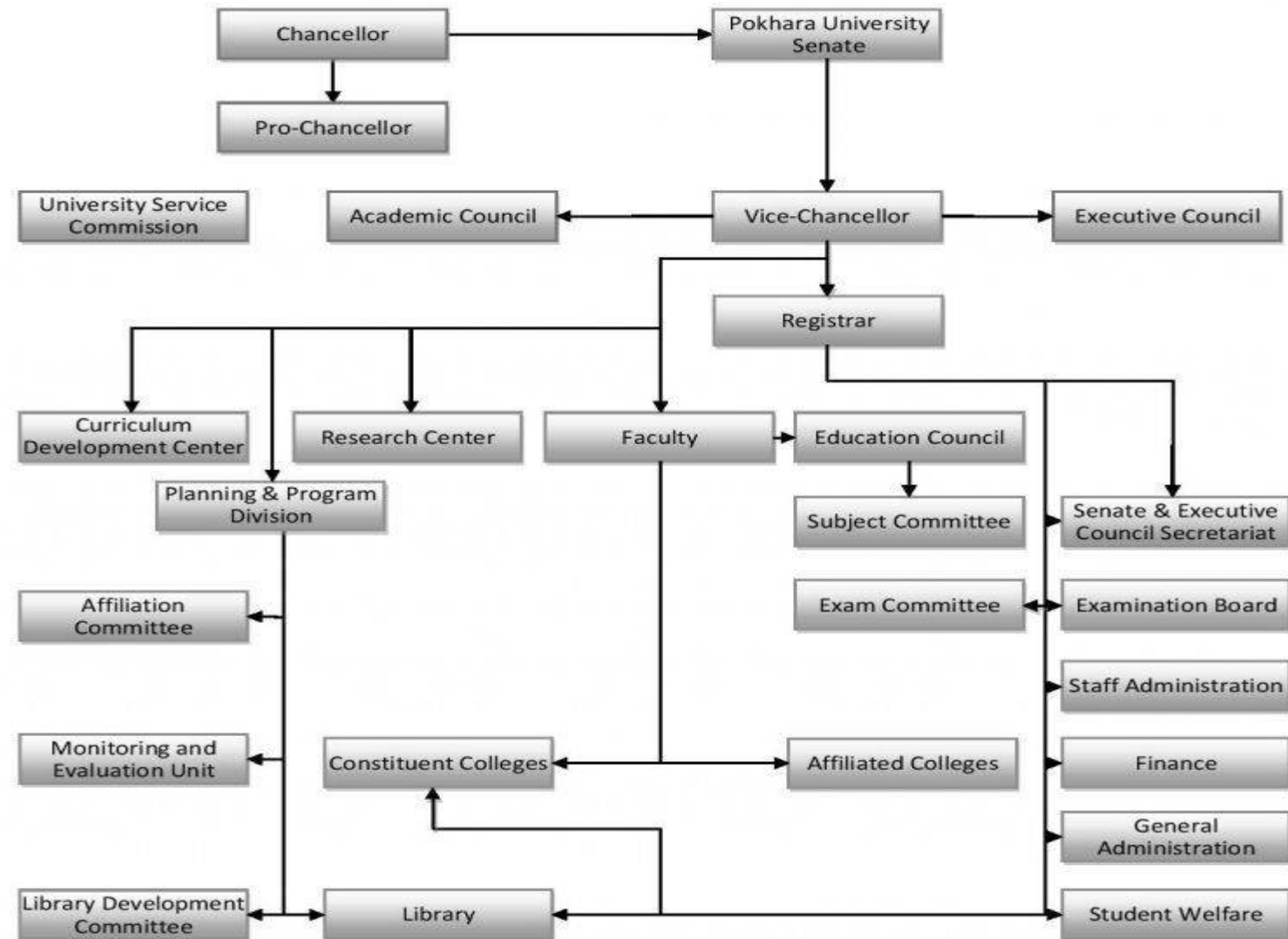
## Introduction –Pokhara University

- ❖ 2<sup>nd</sup> Largest University Of Nepal
- ❖ University is established by parliament act 1992
- ❖ Technical University - providing higher education ( Bachelor , Masters and PHD ) via 6 constituent campus and 58 affiliated campus throughout the nation
- ❖ Central office and Constituent campus are located in Beautiful City Pokhara , capital of Province No 4
- ❖ University is contributing higher education within the country via following Faculty
  - ❖ Faculty of Science and Technology
  - ❖ Faculty of Health and Allied Science
  - ❖ Faculty of Humanities
  - ❖ Faculty of Managements
- ❖ Academic and Research Activities of the university is also assisted by following Directorate office
  - ❖ Pokhara University Research Center
  - ❖ Curriculum Division Center
  - ❖ International Relation Center
  - ❖ Planning Division





## Organizational -Structure







## Faculty Of Science and Technology

The Faculty of Science and Technology was established in 1997 under the Pokhara University Act. Pokhara University has offered Bachelor and Master programs to prospective students under the Faculty of Science and Technology

### Bachelor Level Programs

- ❖ Bachelor of Engineering in Information Technology
- ❖ Bachelor of Architecture
- ❖ Bachelor of civil Engineering
- ❖ Bachelor of Software Engineering
- ❖ Bachelor of Computer Engineering
- ❖ Bachelor of Electronics and Communication Engineering
- ❖ Bachelor of Civil & Rural Engineering
- ❖ Bachelor of Electrical and Electronics Engineering
- ❖ Bachelor of Science in Environmental Management
- ❖ Bachelor of Computer Application

### Phd Program:

Feasibility study and Planning is  
Completed and going to start 2021 in engineering

### Master Level Programs

1. Master of Science in Interdisciplinary Water Resource Management (M.Sc.IWRM)
2. Master of Science in Computer Science (M.Sc.Computer)
3. Master of Science in Information Systems Engineering
4. Master of Science in Environmental Management
5. Master of Science in Natural Resources Management
6. Master of Science in Construction Management
7. Master of Science in Transportation Engineering & Management
8. Master of Science in Computer Engineering
9. Master of Science in Structural Engineering
10. Master of Science in Electrical Engineering in Power System
11. Master of Science in Hydro-power Engineering
12. MSc in Public Health & Disaster Engineering



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## Faculty Of Science and Technology

**Supporting the Professionalisation of Health Engineering studies and Related areas in Asia (SPHERA)/Project Number: 573909-EPP-1-201-ES-EPPKA2-CBHE-JP**



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**Enhancing Green Economy in 3 Countries in Asia (EGEA)/Project Number: 598470-EPP-1-2018-DE-EPPKA2-CBHE-JP**



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**EU-Asia Collaboration for aCcessible Education in Smart Power Systems (eACCESS)/Project Number: 610041-EPP-1-2019-1-PL-EPPKA2-CBHE-JP**



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**Faculties are Conducting Individual and Collaborative research from the support of NITEC (Nepal Innovation Technology and Entrepreneurship Center which is Supported by Handong Global University, South Korea)**



**Faculties are Conducting Individual and Collaborative research from the support of UGC (University Grants Commission) which is government organization**



**University is Supporting to the faculties as well as students for the individual and collaborative research via University research center as well as from the school RMC (Research Management Cell)**



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## EU-Asia Collaboration for aCcessible Education in Smart Power Systems (eACCESS)

The role of the Pokhara university in this eACCESS will be followings

- ❖ Suggest courses of Bachelor and Masters Program of Electrical Engineering to be developed or modernization with Justification. Implement the developed or modernized course within the project duration
- ❖ Provide the necessary technical support during the processes of Laboratory Development in partner universities
- ❖ Develop the Virtual Learning platform (Moodle) and implement learning processes via virtual platform
- ❖ For the common courses of bachelor and masters program share resource person as well as contribute to develop common teaching material (Compendium)
- ❖ Provide opportunity to masters students and Young faculties for training in well equipped laboratory of the partner university to enhance quality and sustainability of Electrical power studies
- ❖ Organize webinars of the electrical power sectors to the graduate and undergraduate students with resource person of the partner universities as well as other international universities to transfer the technology as well to hone the skills of students
- ❖ Establish the relation with local utilities companies and industries for the collaborative research in future or to involve graduate students for the remedy of the challenges of local industries for the sustainable development of the technology





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## Activity 1

The webinar was organized on optimal operation of Solar PV Energy Conversion system on Sep 13, 2020 03:00 PM. It was directly supported by eACCESS project for the resource person hiring and organizing the whole event. It was conducted in virtual mode via Zoom Cloud Meeting platform and there were altogether 171 registrations from different 13 countries around the world.

## Learning Out Come

Participants are made able to explore the research areas in the sector of Solar PV system. Participants are known about the factors affecting Solar PV energy conversion, optimal operation of solar PV system, and it's affecting factors.

## Summary of Events

Resource person : Dr. Nishant Kumar, the post-doctoral research fellow at Singapore National University, Singapore

Moderator : Er Sudip Phuyal, team member and technical expert for Microgrid Management and Control Systems project at Department of Electrical and Electronics Engineering, Kathmandu University, Nepal.

Keynote Speech :Buddhi Raj Joshi, the former Dean of Faculty of Science and Technology, Pokhara University and the focal person for eACCESS project at Pokhara University.

Vote of Thanks :Assoc. Prof. Lalit Bickram Rana, the Contact Person of eACCESS project of Erasmus+ program at Pokhara University.

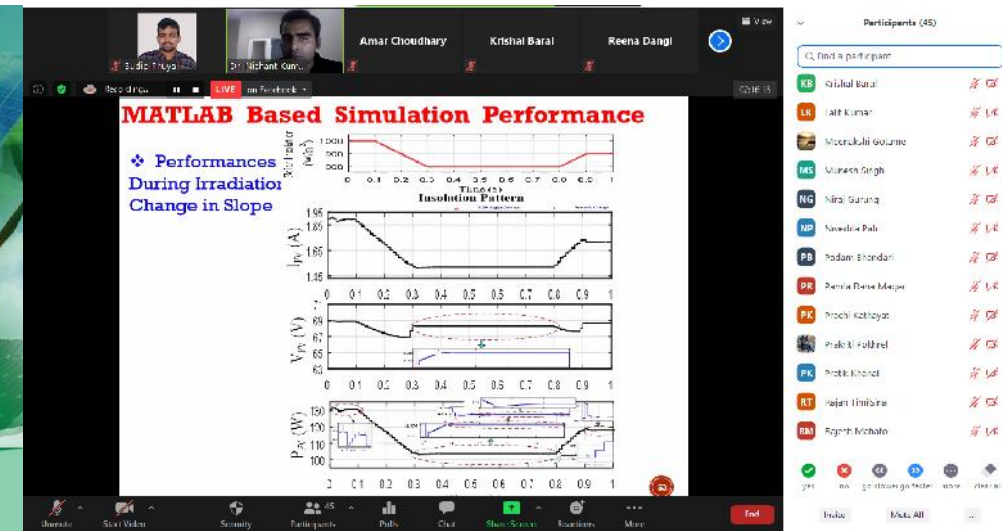
**WEBINAR ON  
OPTIMAL OPERATION OF  
SOLAR PV ENERGY CONVERSION SYSTEM**

Dr. Nishant Kumar received the M.Tech. degree (with Gold Medal) in Electrical Power Systems from the National Institute of Technology Durgapur, India, in 2013, and the PhD degree (with Best Thesis Award) in power systems from the Department of Electrical Engineering, IIT Delhi, New Delhi, India, in 2019. He is currently working as a Senior Postdoctoral Research Fellow at the National University of Singapore (NUS), Singapore. From 2013 to 2014, he was the Project Engineer/Research Associate at IIT Bombay and IIT Delhi. His areas of research interests include soft computing-based generation control, optimization algorithm development, and application of soft computing techniques in power system planning, operation, and control. He also received the Gold Medal in M.Tech. degree from the National Institute of Technology Durgapur in 2013, Best Thesis award in PhD Category in IEEE IAS Thesis Contest 2020 (PhD Category), POSOCO Power System National Award (PPSA-2018) in Doctoral Category from the Power Grid Corporation of India Limited in 2019, IEEE Senior Membership felicitated by IEEE in 2020, and Young Scientist Award. He was also felicitated by the DST, Govt. of India to represent India in 5th BRICS Young Scientist Conference (held in Russia, 2020).

Supported by:

**REGISTER NOW**

<https://tinyurl.com/sucvwebinar>





## Activity 2

Orientation Program on Project/Thesis Guidelines and Dissemination of eACCESS Project Activities to the utility company professional and Graduate students

**Aim :**

*Student learnt about the research domain on power engineering field and opportunities in utility company for Masters thesis  
Dissemination of eACCESS project activities and future planning  
To Build up collaboration between Academia and Industry*

### Summary Of Events

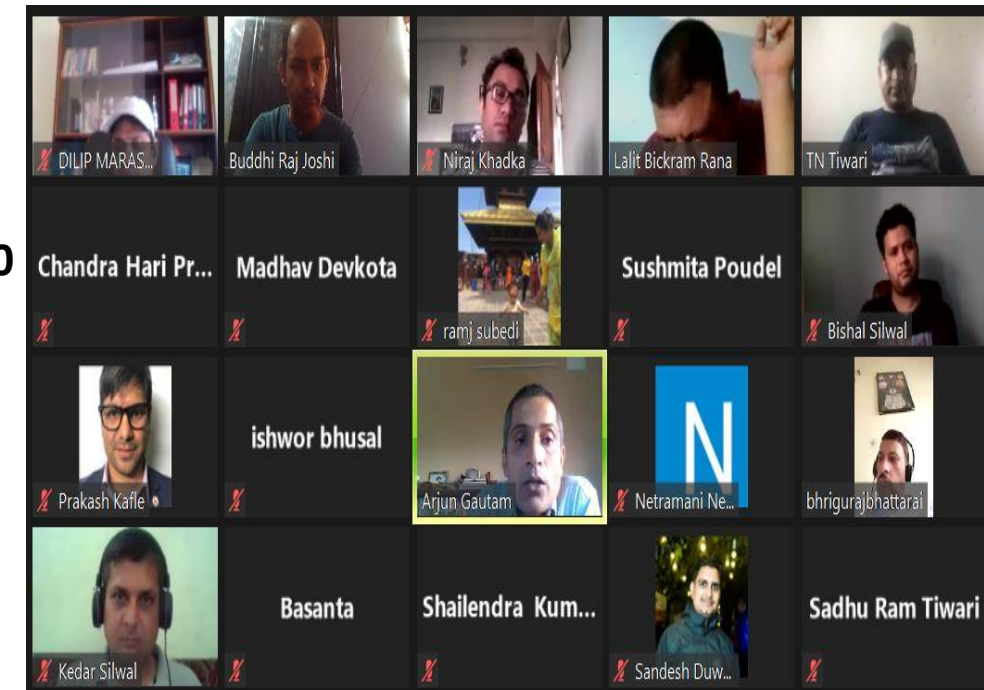
**Event Organized : Faculty of Science and Technology Date : 12 Sept 2020**

**Key Speaker : Er. Budhhi Raj Joshi** disseminate the major activities of the project so far accomplished and scope of the Project in totality

**Guest Speaker :Er Teknath Tiwari** Regional Director Nepal Electricity Authority discussed on the “Challenge and Opportunity in power distribution and transmission networks”

**Guest Speaker : Dr. Shailendra Kumar Jha** Kathmandu University and **Dr. Basanta Kumar Gautam** IOE discussed on “ Trends and Challenges for M.Sc . Thesis “

**Vote Of thanks : Lalit Bickram Rana** discussed on the different Millstones and opportunity and scope within the project







# Activity 3

Webinar was organized on “ 1<sup>st</sup> NRN Asia Pacific Knowledge Convection “

**Aim :**  
*Knowledge sharing between Young Scientist To share the Knowledge about the opportunity and Chalangge for nepalese students in Asia –Pacific Countries*

## Summary Of Events

Event Organized : Asia Pacific NRN Date : 27 Sept 2020  
Key Speaker : Er. Budhhi Raj Joshi disseminate the major activities of the project so far accomplished and scope of the Project in totality and international projects of pokhara university  
Guest Speaker : Mr. Tonking Bastola , Mr. Bikash Adhikari, Mrs Hissi Shreasth Presented the opportunity and chalanges to Nepalese students in Asia –Pasific Regions during this COVID 19 pendamics  
Moderator : Senssion is moderated by Mr. Prakash Devekota Phd scholar Wangong University

### 1st NRN Asia Pacific Knowledge Convention

Knowledge Sharing among Nepalese : Challenges and Opportunities for Entrepreneurs following the COVID-19 Pandemic

S9: Students in foreign nations- a shared perspective of Nepalese students and stakeholders  
Mr. Prakash Devkota/ Ms. Aliza K C Bhandari

Mr. Buddhi Raj Joshi

Mr. Prakash Devkota

Mr. Santosh Gautam

Mr. Tonking Bastola

Mr. Bikash Adhikari.

Ms. Aliza KC Bhandari

Ms. Ashmita Adhikari

Ms. Hissi Shrestha

Ms. Samikshya Kandel

Ms. Charu Bista

September 27  
12:15-14:15

Zoom Link: 93609951239  
Password: 2020

Live On :  
asia.knowledge-nrna.org

II. Invited Speakers		
<div>Mr. Santosh Gautam</div>	Brain Gain Centre : Facilitating meaningful and productive connections	Coordinator Brain Gain Centre, Ministry of Foreign Affairs Nepal
<div>Mr. Buddhi Raj Joshi</div>	International Academic Projects of Pokhara University and Internalization of Academic Programs	Assistant Professor, School of Engineering , Pokhara University (PU), NEPAL



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Thank you message!



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