

## **28<sup>th</sup> June(Saturday)**

Reporting at registration help desk(9:00 to 10:30)

### **Hi Tea**

Venue: Mechi Hall

Time: 9:00 to 10:30

### **Inaugural function**

Venue: Koshi Hall

Time: 10:30 to 12:00

Chairing Ceremony

National anthem

Panas Lighting

Welcome speech

ICRTAI Speech

Address #1

Address #2

Address #3

Address #4

Address by Conference Chair (Academic)

Address by Chief Patron

Vote of Thanks

### **Special Plenary Session-I**

Venue Koshi hall

Time:12:00 to 13:30

Keynote 1 (12:00 to 12:20)

#### **USE OF AI AND ML FOR SUSTAINABLE DEVELOPMENT**

*Prof. Dr. JK Mandal*

Keynote 2 (12:25 to 12:45)

#### **HYPE AND REALITY OF AI AND NATIONAL DEVELOPMENT**

*Prof. Dr. Manish Pokhrel*

Keynote 3 (12:50 to 13:10)

#### **IMPACT OF AI IN RESEARCH AND ACADEMICS**

*Prof. Dr. Sudhan Jha*

Presentation I (13:15 to 13:30)

*Dr. Jitendra Parajuli*

Keynote 4 (13:35 to 13:55)

**AI IN HEALTHCARE AND THE FUTURE OF NEUROSURGERY**

*Dr. Roshan Khatiwada*

*Lunch will be served in the Mechi hall from 14:00 onwards.*

## **Technical Session 1**

Time: 14:00 to 16:30

Venue Koshi hall

**1. ICRTAI-12**

**UNUSUAL ACTIVITY DETECTION WITH ALERT SYSTEM USING VISION TRANSFORMER**

*Ocean Sitaula, Pravin Sangroula, Prabesh Sharma, Pukar Karki, Shailesh Devkota, Suchita Kri. Sah*

**2. ICRTAI-13**

**A SEMANTIC RETRIEVAL AND GENERATION FRAMEWORK FOR ALUMNI INTELLIGENCE USING LLAMA 3**

*Bipin Acharya, Sudip Koirala, Rajina Chaudhari, Krishna Gautam, Bishwas Pokharel*

**3. ICRTAI-14**

**BEYOND ACCURACY AND CLASSIFICATION: XAI-DRIVEN INTERPRETABILITY IN CERVICAL CANCER**

*Saugat Kafle, Prakash Paudel, Mohan Bhandari*

**4. ICRTAI-15**

**TOWARDS STANDARDIZED TAX REPORTING: LEVERAGING BUSINESS ANALYTICS IN THE INLAND REVENUE DEPARTMENT**

*Chudamani Dhungana, Gajendra Sharma, Bishwas Pokharel, Sushila Kumari Baral*

**5. ICRTAI-31**

**DOCUMENT VERIFICATION SYSTEM USING TROCR AND RESNET-50 VERIFICATION SYSTEM USING TROCR AND RESNET-50**

*Aachal Tiwari, Arpan Neupane, Ganesh Chaudhary, Sonam Chaudhary*

**6. ICRTAI-34**

**SKIN CANCER CLASSIFICATION USING TRANSFER LEARNING WITH MOBILE ONE: A DEEP LEARNING APPROACH**

*Dilli Hang Rai, Sabin Kafley, Om Prakash Dhakal*

**7. ICRTAI-35**

**DEVELOPING A NEPALI LLM BASED ON A NATIVE DATASET**

*Bijaya Sharma, Sulav Bhandari, Yunesh Shrestha, Nishant Bhattarai*

8. **ICRTAI-36**  
**MACHINE LEARNING BASED CROP YIELD PREDICTION USING METEOROLOGICAL DATA IN NEPAL.**  
*Pratik Ghimire*
9. **ICRTAI-40**  
**DEEP LEARNING APPROACH FOR DETECTING DRIVER DROWSINESS IN REAL TIME**  
*Shashi Puri, Sabina Thapa, Kapil Kunwar*
10. **ICRTAI-43**  
**MODELING NEPAL'S AI READINESS: A SIMULATION-BASED REGIONAL (SAARC) ANALYSIS OF GLOBAL RANKINGS AND POLICY IMPACTS (2021–2027)**  
*Newton Shahi Thakuri, B.D Acharya*
11. **ICRTAI-45**  
**COMPARATIVE EVALUATION OF CONVOLUTIONAL NEURAL NETWORKS: KIDNEY ABNORMALITY DETECTION IN CT SCANS WITH TRANSFER LEARNING AND ADVANCED OPTIMIZATION**  
*Bishwa Kiran Poudel*
12. **ICRTAI-50**  
**A SURVEY ON THE ADVANCEMENTS OF SPEECH TECHNOLOGIES FOR THE NEPALI LANGUAGE**  
*Binayak Karki, Bhaskar Rijal, Anmol Guragain*
13. **ICRTAI-54**  
**PREDICTIVE WATER USAGE OPTIMIZATION WITH IOT AND REGRESSION MODELS**  
*Yuyutshu Banjara, Dhiraj KC*

## **Special Plenary Session-II**

Venue Koshi hall

Time: 16:30 to 18:00

Keynote 5 (16:30 to 16:50)

**ADVANCING DIGITAL TRANSFORMATION IN AGRITECH: A FOCUS ON NEPAL**

*Dr. Ritu Raj Lamsal*

Keynote 6 (16:55 to 17:15)

**POSSIBILITY OF USING AI IN NEPALI AGRICULTURE**

*Dr. Umesh Acharya*

Keynote 7 (17:20 to 17:40)

**AI FOR ACCELERATING SUSTAINABLE DEVELOPMENT GOALS AND BEYOND**

*Assoc. Prof. Dr. Prajal Pradhan*

## Online Technical Session-I

Venue Munal Hall

Time: 14:00 to 16:30

ICRTAI-61	<b>POTENTIAL OF BLOCKCHAIN</b>	Er. Nitin Bhagat	June 28, 14:00
ICRTAI-17	<b>TECHNICAL CHALLENGES OF ENCRYPTION IN MOBILE FORENSICS</b>	Er. Mukesh Tiwari	June 28, 14:15
ICRTAI-33	<b>A DESIGN OF IOT-BASED MONITORING SYSTEM FOR INTELLIGENT MEAT QUALITY IN VYAS MUNICIPALITY, NEPAL</b>	Deepak Pantha, Sunil Poudel Dr. Roshan Koju	June 28, 14:30
ICRTAI-41	<b>SABDHAMANTHAN: EMBEDDING MODEL IN NEPALI LANGUAGE</b>	Rupak Neupane Srijan Gyawali Sarjyant Shrestha Manish Pyakurel	June 28, 14:45
ICRTAI-44	<b>INTELLI-DOCS: AI-POWERED PERSONAL DOCUMENT ASSISTANT, SIMPLIFIED MANAGEMENT AND RETRIEVAL OF PERSONAL RECORDS</b>	Kritika Thapa Prashant Bhattarai Roshan Chaudhary Saurab Baral	June 28, 15:00
ICRTAI-48	<b>DETECTION OF PARKINSON'S DISEASE USING DEEP LEARNING</b>	Chirag Khatiwada	June 28, 15:15
ICRTAI-51	<b>AUTOMATING DOCUMENT WORKFLOWS WITH RESNET-50 AND TEMPLATE-BASED OCR</b>	Srijan Gyawali Rupak Neupane Sarjyant Shrestha Manish Pyakurel	June 28, 15:30
ICRTAI-53	<b>KINEMATIC WORKSPACE EVALUATION OF A DELTA PARALLEL MECHANISM CONSIDERING THE INFLUENCE OF ARM LENGTH</b>	N. Bhetwal A. Bimal P. Timsina, N. Ghimire, U. Dahal S. Sapkota	June 28, 15:45
ICRTAI-55	<b>IMAGE STEGANALYSIS USING ENSEMBLE CLASSIFIER</b>	Sachin Koirala Sajal Poudel Unique Shrestha Utsav Chandra Kayastha	June 28, 16:00
ICRTAI-56	<b>LIP READING USING CONVOLUTIONAL NEURAL NETWORKS</b>	Chirag Khatiwada, Bishesh Pokharel, Mahim Rawal Rowel Maharjan	June 28, 16:15

ICRTAI-57	<b>ADVANCING OFFLINE SIGNATURE VERIFICATION WITH BIDIRECTIONAL SIAMESE DEEP LEARNING</b>	Surendra Basnet, Deeyo Ranjan Dongol, Surendra Shrestha	June 28, 16:30
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**29<sup>th</sup> June(Sunday)**

**Hi Tea**

Venue Mechi Hall

Time: 7:00 to 8:00

**Special Plenary Session-I**

Venue Koshi hall

Time: 8:00 to 10:00

Keynote 8 (8:00 to 8:20)

*Dr. Mahashweta Sarkar*

Keynote 9 (8:25 to 8:45)

*Dr. Sanju Kr. Singh*

Keynote 10 (8:50 to 9:10)

*Dr. Arjun Singh Saud*

Keynote 11 (9:15 to 9:35)

*Er. Pravin Regmi*

Keynote 12 (9:40 to 10:00)

**SCOPE AND SIGNIFICANCE OF AI IN THE EDUCATION SECTOR IN THE CONTEXT  
OF NEPAL**

*Dr. Gajendra Sharma*

**Grand Panel Discussion**

Venue: Koshi Hall

Moderator: Dr. Bhoj Raj Ghimire

Time: 10:00 to 11:00

**Expert Session**

Venue: Koshi Hall

Time: 11:00 to 11:30

**Project Demonstration**

**Venue: Mechi Hall**

Time:11:00 onwards

**Technical Session 2**

Venue: Koshi Hall

Time:11:00 to 13:30

1. **ICRTAI-16**  
**COMPARATIVE ANALYSIS OF SEVERITY OF COVID-19 PNEUMONIA**  
*Sushant Bhattarai*
2. **ICRTAI-32**  
**LEGAL CHATBOT FOR GENDER BASED VIOLENCE USING FINE-TUNED LLM AND RAG**  
*Anurag Sharma, Pratyush Panta*
3. **ICRTAI-37**  
**LAND COVER SEGMENTATION FROM SATELLITE IMAGERY USING U-NET**  
*Yamraj Khadka*
4. **ICRTAI-39**  
**IMAGE COLORIZATION VIA CGANS USING RESNET-18 BACKED U-NET ARCHITECTURE**  
*Subash Yadav*
5. **ICRTAI-42**  
**ACCESSIBILITY ASSISTANT USING FINE-TUNED LLM**  
*Aayush Nepal, Awish Regmi*
6. **ICRTAI-46**  
**AI FACIAL ANALYSIS AND SKINCARE ADVISOR USING COMPUTER VISION AND MACHINE LEARNING**  
*Aayush Kumar Singh*
7. **ICRTAI-47**  
**THE EMERGING POTENTIAL OF AGENTIC AI IN EDUCATION: EXPLORING ADAPTIVE AUTONOMY, GOAL-DRIVEN LEARNING, AND FUTURE PEDAGOGICAL IMPLICATIONS**  
*Gaurab Dahal, Pritika Basnet*
8. **ICRTAI-49**  
**PRIVACY-PRESERVING MACHINE LEARNING THROUGH SELECTIVE UNLEARNING**  
*Dipesh Acharya*
9. **ICRTAI-59**  
**STREAM-BASED MACHINE LEARNING ALGORITHMS FOR CONTINUOUS DATA PROCESSING**  
*Dr. Gopal Prasad Sharma*

Presentation II

Prof. Dr. Devendra Kr. Adhikari

***Lunch will be served in the Restaurant from 13:00 onwards.***

## Closing Session

Venue: Koshi Hall

Time: 14:00 to 15:00

## Online Technical Session-II

Venue: Muna Hall

Time: 09:00 to 12:15

ID	TITLE	Author	Date and Time
ICRTAI-18	SECURITY CHALLENGES IN IOT FOR THE EDUCATION SECTOR	Samniwa Angdembe	June 29, 9:00
ICRTAI-19	RECENT ADVANCES IN AI-DRIVEN CYBERSECURITY: TACKLING PROMPT INJECTION ATTACKS	Er. Saroj Ghimire	June 29, 9:15
ICRTAI-20	ENHANCING HANDWRITTEN TEXT RECOGNITION PERFORMANCE WITH ENCODER TRANSFORMER MODELS	Dipesh Bhattarai	June 29, 9:30
ICRTAI-21	DEVELOPMENT AND EVALUATION OF MOBILE TOUCH-BASED USER INTERFACE PROTOTYPE FOR ELDERLY USERS	Manoj Bhattarai	June 29, 9:45
ICRTAI-22	PASSWORD HABITS OF UNIVERSITY STUDENTS	Shayana Manandhar	June 29, 10:00
ICRTAI-23	LITERACY GAP IN SHARE MARKET: BUY AND SELL	Deepa Shrestha	June 29, 10:15
ICRTAI-24	EXPLAINABLE AI IN CYBERSECURITY: CATALYZING CLEAR MODELS FOR MALWARE AND INTRUSION DETECTION	Dipak Adhikari Suman Thapaliya	June 29, 10:30
ICRTAI-25	A NOVEL APPROACH TO SELF-TUNING DATABASE SYSTEMS USING REINFORCEMENT LEARNING TECHNIQUES	Sushil Bhattarai	June 29, 10:45
ICRTAI-26	RECENT ADVANCES IN AI FOR INCLUSIVE WEB DESIGN: A PERFORMANCE-OPTIMIZED FRAMEWORK FOR REAL-TIME ACCESSIBILITY ADAPTATIONS FOR NEURODIVERGENT USERS	Ashish Gautam	June 29, 11:00
ICRTAI-27	A CROSS-SECTOR APPROACH TO PROACTIVE BREACH DETECTION AND ADAPTIVE DEFENSE	Ravi Chandra Gurung	June 29, 11:15
ICRTAI-28	ETHICAL AND EXPLAINABLE ARTIFICIAL INTELLIGENCE (XAI) IN EDUCATION SYSTEMS	Rupak Gadtaula	June 29, 11:30
ICRTAI-29	DEEP LEARNING FOR MALWARE ANALYSIS AND NETWORK ANOMALY DETECTION	Saroj Dhital	June 29, 11:45
ICRTAI-30	AI-AUGMENTED THREAT INTELLIGENCE: ENHANCING SITUATIONAL AWARENESS IN CYBERSECURITY	Rageena Shrestha	June 29, 12:00
ICRTAI-52	LEVERAGING AI-POWERED SENTIMENT ANALYSIS IN EDUCATIONAL DECISION-MAKING PROCESSES	Bigyan Pandey	June 29, 12:15

