Course Relevance

The domain of Multimedia Forensics and Security is increasingly gaining importance due to the wide availability and transmission of multimedia data across platforms like computers, mobile phones, satellites, etc.

Multimedia data forms a primary source of information for law enforcement agencies, court of law, entertainment industry, journalism etc. Hence authenticity of multimedia data (audio/image/video) is nowadays becoming an important criteria since many off-the-shelf software tools (adobe photo-shop, gimp) are readily available for carrying out the tampering activity. Multimedia Forensics is an emerging field that focusses on verifying and authenticating the origin and reconstructing the life history of multimedia data.

Course Objectives

- To present a comprehensive overview and understanding of multimedia forensics from the perspective of law enforcement agencies, legal personnel and researchers.
- To introduce the various research problems in the area of multimedia forensics and security.
- To introduce the standard datasets available for starting basic research in multimedia forensics and security.
- To provide practical hands on lab exercises for illustrating the interesting field of multimedia forensics and security.

Guest Speakers (Tentative)

- Dr. Jayanta Mukhopadhyay, IIT Kharagpur
- Dr. Prabir K. Biswas, IIT Kharagpur
- Dr. Debdeep Mukhopadhyay, IIT Kharagpur
- Dr. Toshan Meenpal, NIT Raipur

Host Speakers

- Dr. Manish Okade, NIT Rourkela
- Dr. K. K. Mahapatra, NIT Rourkela
- Dr. Ruchira Naskar, NIT Rourkela

TEQIP – III Sponsored Short Term Course on

"Multimedia Forensics and Security"

2nd to 6th July 2018

Co-ordinator:
Dr. MANISH OKADE
Assistant Professor
Department of Electronics & Communication Engineering.
National Institute of Technology
Rourkela – 769 008.
Email: okadem@nitrkl.ac.in
Mobile: 7008111677, 8895853758

ABOUT NIT ROURKELA

National Institute of Technology (NIT), Rourkela was founded as Regional Engineering College, Rourkela in 1961. It is a prestigious Institute with a reputation for excellence at both undergraduate and postgraduate levels, fostering the spirit of national integration among the students, a close interaction with industry and a strong emphasis on research, both basic and applied. Its been consistently ranked within TOP 20 engineering institutes for 4 consecutive years as per MHRD's NIRF, Govt. of India.

The city of Rourkela is a bustling industrial town, cosmopolitan by nature and is well connected to all parts of the country by road and rail. It is en-route Howrah-Mumbai main line of South-Eastern Railway. Nesting amidst greenery on all sides, NIT campus is approximately 7km from Rourkela railway station. The nearest airports are Ranchi, Kolkata and Bhubaneswar.

Website: www.nitrkl.ac.in

https://sites.google.com/site/manishokade/

APPLICATION DETAILS

Category	Registration fee:
Faculty/Researchers	**Rs. 2000/-**
Industry participants	**Rs. 3000/-**
Students (UG/PG/PhD)	**Rs. 1000/-**

Interested participants can pay the registration fee via online banking followed by sending an email to the co-ordinator. The banking details are given below. Alternatively, they could also pay via Demand Draft drawn in favour of Director, NIT Rourkela and send it by post to the co-ordinator.

Account Name: Director NIT Rourkela

Account number: 10138951648

IFSC Code : SBIN0002109

Bank name : State Bank of India, NIT Campus

Registration includes Course kit, study material as well as breakfast and lunch on all five days. Accommodation will be provided to the participants in the institute on payment basis. Accommodation request has to sent to the co-ordinator by e-mail.

2nd July :
- Introduction to Multimedia Forensics: What, Why, Implications, Motivation
- Forensic Datasets – UCID, RAISE, Dresden
- Tutorial (hands-on) with forensic datasets

3rd July :
- Types of Multimedia Forensics
  a) natural image v/s computer generated image identification
  b) JPEG based forensics
  c) Filtering based forensics
  d) Camera based forensics
- Invited Talk 1
- Tutorial with existing forensic algorithms

4th July :
- Types of multimedia forensics(contd.)
  a) video forensics
  b) anti-forensics
- Invited Talk 2
- Tutorial with existing forensic algorithms(contd.)

5th July :
- Types of multimedia forensics
  a) resampling forensics
  b) contrast enhancement forensics
- Invited Talk 3
- Tutorial session on video forensics

6th July :
- Research direction in the area of multimedia forensics (Part-I)
- Art of research paper writing
- Valedictory & Certificate distribution