

# *Seminar on Radiological Imaging Informatics and Intelligent Biomedical Systems Engineering*

## Date and time

- 13:00 – 14:30, September 5<sup>th</sup>, 2024 (Japan Standard Time)

## Venue(hybrid)

- Onsite  
Department of Radiological Imaging and Informatics,  
Tohoku University Graduate School of Medicine,  
4<sup>th</sup> Flr., School of Medicine Building 1 (B01),  
2-1 Seiryō-machi, Aoba-ku, Sendai, Miyagi, 980-8575, Japan
- Online
  - Zoom (URL will be sent after registration)
  - Registration Form: <https://forms.gle/jC7c9HELpz7Ais568>
  - Deadline: September 4<sup>th</sup>

## Program

- 13:00 – 13:50  
“**Learning Entropy for Sub-Nyquist and Sub-Noise Anomaly Detection with Physics Informed Neural Architectures**”  
**Dr. Ivo BUKOVSKY** (Associate Professor, University of South Bohemia in Ceske Budejovice, Czech Republic) and **Mr. Vladimír MALY** (Engineer, VM Engineering; Czech Technical University in Prague, Czech Republic)
- 13:50 – 14:00  
“**Biometric Identification Technique Using Video Plethysmography Captured in the Palm Area**”  
**Mr. Shuma MATSUZAKI** (Master student, Tohoku University)
- 14:00 – 14:10  
“**Autoencoder-Based Anomaly Detection in Mammography Using Normal Cases**”  
**Mr. Issei YOSHIKUNI** (Master student, Tohoku University)
- 14:10 – 14:20

## “A Study of Explainable Deep learning Model for H. Pylori Diagnosis Using Gastric X-ray Images”

Mr. Riku NUMANO (Master student, Tohoku University)

- 14:20 – 14:30

### General discussion and concluding remarks

#### Co-sponsors:

- Human Welfare Engineering Division, Smart Aging Research Center, Tohoku University
- AI Applied Medicine Division, ART, Tohoku University Graduate School of Medicine

Department of Radiological Imaging and Informatics, Tohoku University Graduate School of Medicine

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# 医用画像情報学と知能システム医工学 に関するセミナー

## 日時

- 2024 年 9 月 5 日(木) 13:00～14:30

## 会場-ハイブリッド

- Onsite

オンサイト：医学部 1 号館 4 階 医用画像工学分野

〒 980-8575 宮城県仙台市青葉区星陵町 2-1

- オンライン

- Zoom（参加 URL は、登録フォーム回答完了後、お知らせします）
- 申込みフォーム <https://forms.gle/jC7c9HELpz7Ais568>
- 締め切り 2024 年 9 月 4 日(水)

## プロGRESS

- 13:00 – 13:50

### “Learning Entropy for Sub-Nyquist and Sub-Noise Anomaly Detection with Physics Informed Neural Architectures”

**Dr. Ivo BUKOVSKY** (Associate Professor, University of South Bohemia in Ceske Budejovice, Czech Republic) and **Mr. Vladimír MALY** (Engineer, VM Engineering; Czech Technical University in Prague, Czech Republic)

- 13:50 – 14:00

### “Biometric Identification Technique Using Video Plethysmography Captured in the Palm Area”

松崎 宗真 (修士 2 年, 東北大学)

- 14:00 – 14:10

### “Autoencoder-Based Anomaly Detection in Mammography Using Normal Cases”

吉住 壹成 (修士 2 年, 東北大学)

- 14:10 – 14:20

### “A Study of Explainable Deep learning Model for H. Pylori Diagnosis Using Gastric X-ray Images”

沼野 陸 (修士 2 年, 東北大学)

- 14:20 – 14:30

### General discussion and concluding remarks

共催:

東北大学スマート・エイジング学際重点研究センター人間福祉工学研究部門

東北大学大学院医学系研究科附属創生応用医学研究センターAI 応用医学部門

問合せ: 医学系研究科 医用画像工学分野

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