

15 February, 2018 Digital Biocolor Society

<http://biocolor.umin.ac.jp/>

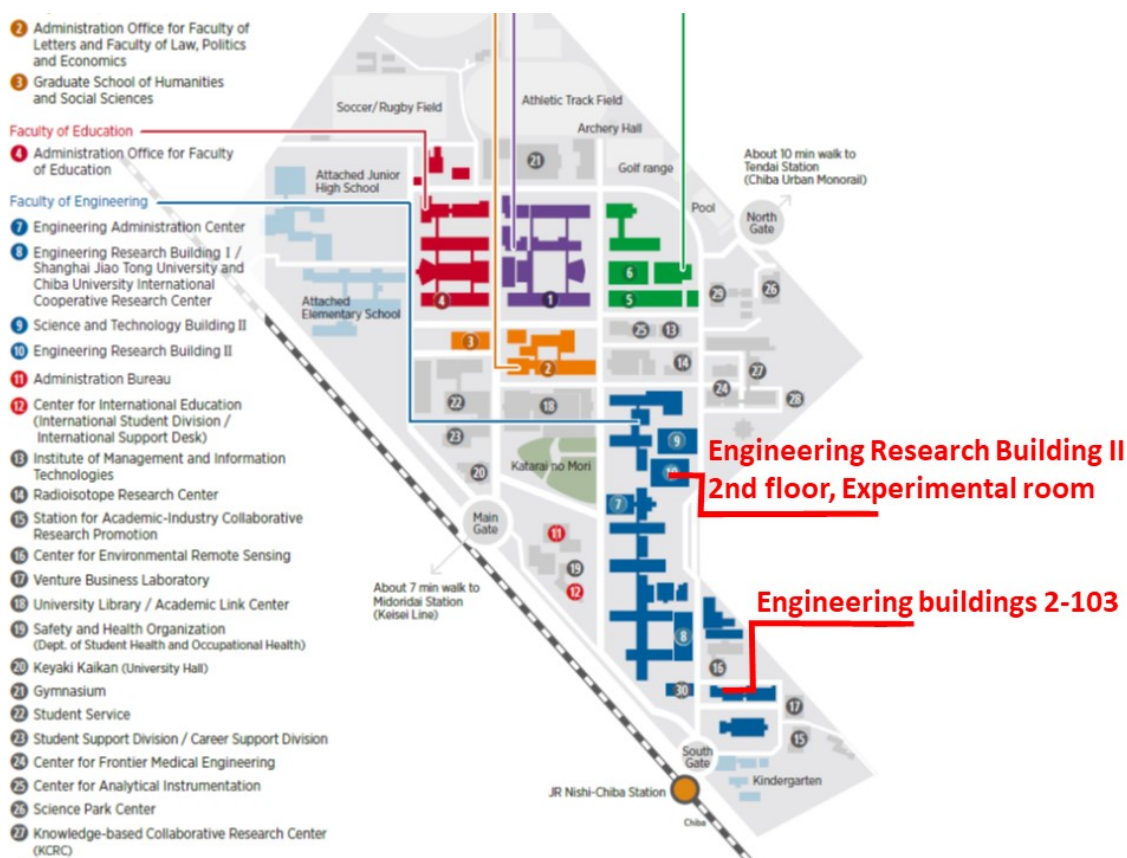
5th Symposium of the 'Color' of Digital Imaging in Biomedicine **“Renovation of Bio-imaging and its practical and clinical applications”**

Venue: Nishi-Chiba Campus in Chiba University

Keynote lecture and invited lectures: Engineering buildings 2-103

General presentations (Poster), Reception:

Engineering Research Building II 2<sup>nd</sup> floor, Experimental room



Registration fee: 5000yen (free for students)

Registration process: Please send the email with name, affiliation, e-mail address, to Norimichi Tsumura < [tsumura@faculty.chiba-u.jp](mailto:tsumura@faculty.chiba-u.jp) >

Organized by Digital Biocolor Society

Co-organized by Global Prominent Program in Chiba University, Japan

Co-sponsored by International Society of Artificial Life and Robotics

Co-sponsored by Group of Information Photonics, The Optical Society of Japan

Modulator: Norimichi Tsumura, Chiba University

9:00 ~9:20 Opening remarks:  
“The load to second stage of Digital Biocolor Society”  
Masahiro Nishibori, International University of Health and Welfare

9:20 ~10:00 Invited talk #1  
“Biomedical imaging based on time-resolving CMOS  
image sensors and compact compound-eye cameras”  
Keiichiro Kagawa, Shizuoka University

10:00 ~10:40 Invited talk #2  
“Non-Contact Video Based Estimation of  
Biomedical Information”  
Munenori Fukunishi, Chiba University

Break ( 5 mins )

10:45 ~11:25 Invited talk #3  
“Noncontact measurement of vascular compliance”  
Kazuya Nakano, Chiba University

11:25 ~12:05 Invited talk #4  
“Contactless finger vein authentication system using moving images”  
Hiroyuki Suzuki, Tokyo Institute of Technology

Lunch

13:00 ~14:00 Keynote Lecture  
“Bio Big Data and Precision Medicine”  
Hiroshi Tanaka, Tokyo Medical and Dental University

14:00 ~14:40 Invited talk #5  
“Measurement of tissue oxygen saturation of webbing of fingers”  
Hideaki Haneishi, Chiba University

Break ( 5 mins )

14:45 ~15:25 Invited talk #6  
“Feature measurement and color standardization  
in digital pathology imaging”  
Masahiro Yamaguchi, Tokyo Institute of Technology

15:25 ~16:05 Invited talk #7  
“Non-Contact Biomedical Information and  
Japanese Traditional(Kampo) Medicine”  
Keiko Ogawa, Kanazawa University Hospital

16:10~ General presentations (Poster) and Reception **(at the same time)**

### **List of posters**

1. Optimal design of illuminant spectra for improving intraoperative color appearance of organ

Yoko Kurabuchi\*1, Kina Murai\*1 Kazuya Nakano\*2, Takashi Ohnishi\*2,  
Toshiya Nakaguchi\*2, Hideaki Haneishi\*2

\*1 Graduate School of Engineering, Chiba University, JAPAN, \*2 Center for Frontier  
Medical Engineering, Chiba University, JAPAN

2. Development of an estimation system for relevance between image of plant genetic resources and environmental information of the collection point

Masaru Takeya, Fukuhiro Yamasaki

Genetic Resources Conservation and Information Team, Genetic Resources Center,  
National Agriculture and Food Research Organization

3. Analysis of quantitative phase obtained by digital holography on H&E stained pathological samples.,

Syukran Hakim Bin Norazman\*1, Tomoya Nakamura\*1\*2, Fumikazu Kimura\*3, Masahiro Yamaguchi\*1

\*1 School of Engineering, Tokyo Institute of Technology, \*2 PRESTO, Japan Science and Technology Agency, \*3 Department of Health and Medical Sciences, Shinshu University

4. Dual-band Video-based Measurement for Non-contact Pulse Rate Estimation in Infrared

Ryota Mitsuhashi \*1, Genki Okada \*2, Koki Kurita \*2, Keiichiro Kagawa \*3, Shoji Kawahito \*3, Chawan Koopipat \*4, Norimichi Tsumura \*5

\*1 Graduate School of Science and Engineering, Chiba University, CHIBA, JAPAN

\*2 Graduate School of Advanced Integration Science, Chiba University, CHIBA, JAPAN

\*3 Research Institute of Electronics, Shizuoka University, HAMAMATSU, JAPAN

\*4 Department of Imaging and Printing Technology, Chulalongkorn University, Thailand

\*5 Graduate School of Science and Engineering, Chiba University, CHIBA, JAPAN

5. Image-Based Non-Contact Monitoring of Skin Texture Changed by Piloerection for Emotion Estimation

Mihiro Uchida\*1, Rina Akaho\*2, Keiko Ogawa-Ochiai\*3, Norimichi Tsumura\*4

\*1 Graduate School of Science and Engineering, Chiba University, Chiba, JAPAN

\*2 Graduate School of Advanced Integration Science, Chiba University, Chiba, JAPAN

\*3 Department of Japanese-Traditional (Kampo) Medicine, Kanazawa University Hospital, Ishikawa, JAPAN

\*4 Graduate School of Engineering, Chiba University, Chiba, JAPAN

6. System for Evaluating Disease state using Facial Image

Futa Matsushita\*1, Kaoru Kiyomitsu\*2, Keiko Ogawa\*3, Norimichi Tsumura\*4

\*1 Graduate School of Science and Engineering, Chiba University, CHIBA, JAPAN

\*2 Graduate School of Advanced Integration Science, Chiba University, CHIBA, JAPAN

\*3 Department of Japanese-Traditional (Kampo) Medicine, Kanazawa University Hospital, KANAZAWA, JAPAN

\*4 Graduate School of Engineering, Chiba University, CHIBA, JAPAN

7. Volume measurement of the lower limb by using the depth camera for quantification of edema

Kaoru KIYOMITSU\*1, Akihiro KAKINUMA\*2, Hiroshi TAKAHASHI\*2, Naohiro KAMIJO\*2, Keiko OGAWA\*3, Norimichi TSUMURA\*1

\*1 Chiba University, \*2 Ricoh Company Ltd., \*3 Kanazawa University

8. The Effect Evaluation of Acupuncture on Autonomic Nervous System Using Heart Rate Variability Measurement with RGB Camera

Kouki Kurita\*1, Kaoru Kiyomitsu\*1, Norimichi Tsumura\*1, Mai Sugawara\*2, Chie Ogasawara\*3, Rei Mishima\*3, Keiko Ogawa-Ochiai\*3

\*1 Chiba University, \*2 University of Teacher Education Fukuoka,

\*3 Kanazawa University

9. A Time-Resolved Near-Infrared Spectroscopy using Custom CMOS Lock-In Pixel Image Sensor,

De Xing Lioe, Zhonghui Liu, Min-Woong Seo, Masatsugu Niwayama, Masashi Hakamata, Keita Yasutomi, Keiichiro Kagawa, Yasuko Fukushi, Seiji Yamamoto, Shoji Kawahito

Shizuoka University, Hamamatsu University School of Medicine

10. Effectiveness of Color Correction on Quantitative Analysis of Histopathological Images Acquired by Different Whole Slide Scanners ,

Maulana Abdul Aziz \*1, Tomoya Nakamura \*2\*3, Masahiro Yamaguchi \*2,  
Tomoharu Kiyuna \*4, Yoshiko Yamashita \*4, Tokiya Abe \*5, Akinori Hashiguchi \*5,  
Michiie Sakamoto \*5

\*1 Interdisciplinary Graduate School of Science and Engineering, Tokyo Institute of Technology

\*2 School of Engineering, Tokyo Institute of Technology

\*3 PRESTO, Japan Science and Technology Agency

\*4 Medical Solutions Division, NEC Corporation

\*5 Department of Pathology, Keio University School of Medicine