Hybrid

ICAPMA-JMAG 2021

IEEE MAGNETICS THAILAND CHAPTER

The American Ceramic Society www.ceramics.org CHAPTER Thailand

IEEE THAILAND SECTION 40th ANNIVERSARY SINCE 1981

Organized by i-STEM

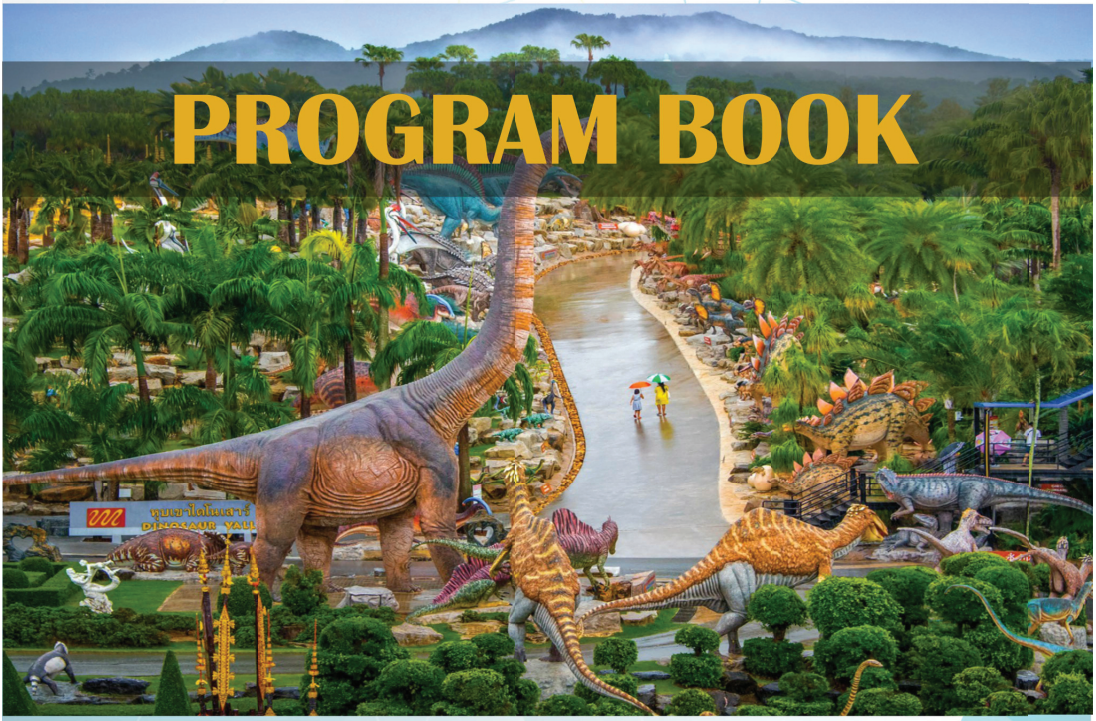
THE JOINT INTERNATIONAL CONFERENCE ON

APPLIED PHYSICS AND MATERIALS APPLICATIONS & APPLIED MAGNETISN AND FERROELECTRICS

1st - 4th December 2021

Nongnooch Traditional Hall, Pattaya, Thailand

PROGRAM BOOK



Co-Host:

Siam Photon

Faculty of Industrial Technology

Faculty of Science Naresuan University

Kasetsart University Since 1943

Mahasarakham University

Rattanakosin RMUTR

Petromat

AUN/SEED-Net

JICA

Seagate

Co-Organizer:

ACerS

JTB Perfect moments, always

Professor Emeritus.com

StudyInteract

Sponsor:

SILVACO

COAX Quality Scientific Instruments

PUDITEC

FERROELECTRICS

micromachines an Open Access Journal by MDPI

Scan here for information

General Chairman: Prof.Dr. Rattikorn Yimnirun (Chairs of IEEE-MagSoc and ACerS Thailand Chapter)

Website: www.matscitech-thailand.com/2021

E-mail: matscitech.thailand@gmail.com

Welcome to The Joint International Conference on Applied Physics and Materials Applications & Applied Magnetism and Ferroelectrics (ICAPMA-JMAG-2021)

Prof. Dr. Rattikorn Yimnirun
Chairman of ICAPMA-JMAG-2021 Organizing Committee

ACerS-Thailand Chapter and IEEE-MagSoc-Thailand Chapter are pleased to announce and cordially invite everyone to participate in The Joint International Conference on Applied Physics and Materials Applications & Applied Ferromagnetism and Ferroelectrics (ICAPMA-JMAG-2021). ICAPMA-JMAG-2021is an international platform for knowledge exchange and sharing, and facilitate the establishment of new collaboration from all over the world. We anticipate strong participation of colleagues and students from around the world.

The first ICAPMA conference (ICAPMA2013) was warmly started by Nakhon Pathom Rajabhat University (NPRU) on February 20th-22nd, 2013 at Cha-Am, Petchaburi, THAILAND, in order to exchange knowledge and experiences in applied physics and materials science fields. Two years later, the 2nd ICAPMA conference (ICAPMA2015) was organized and held at Pattaya, THAILAND, by Suan Sunandha Rajabhat Universityon (SSRU) on May 28th-30th, 2015. With the great impact of the first two in the ICAPMA series, the 3rd ICAPMA conference (ICAPMA2017) was again organized and held at Pattaya, THAILAND, on May 31st-June 2nd, 2017 with greater number of participants and academic quality. Due to the continuous progress of international collaboration between the researchers from the previous ICAPMA conferences, hence, the latest ICAPMA, the 4th ICAPMA conference (ICAPMA2019), was shifted away from THAILAND and be held at Medan, INDONESIA, on September 18th-20th, 2019. It is noticed that this conference series is successfully organized for every other year.

Now, we are delighted to announce that ICAPMA2021 conference, identified as the fifth in this very successful ICAPMA Conference Series, will be jointly co-organized with the first international conference on Applied Ferromagnetism and Ferroelectrics (JMAG2021) by ACerS-Thailand Chapter, IEEE-MagSoc-Thailand Chapter, and i-STEM on December 1st-4th, 2021 in Pattaya, Thailand. This ICAPMA-JMAG-2021 is a truly international conference, with more than 50 international and executive advisory committee members from all over the world. We have more than 100 international Plenary, Keynote, and Invited Speakers, and 500 participants. The Conference covers more than 17 topical and special sessions, and there are more than 15 journals from different fields to publish the works presented. In addition to the main host, The American Ceramic Society (ACerS)-Thailand Chapter and IEEE-Magnetic Society (MagSoc)-Thailand Chapter, we have been endorsed and supported by more than 25 universities and organizations.

Sincerely Yours,

Rattikorn Yimnirun

Rattikorn Yimnirun
Chairman of ICAPMA-JMAG-2021 Organizing Committee

Committee

General Chairman

Prof. Dr. Rattikorn Yimnirun
Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand

General Co-Chairs

1. Assoc. Prof. Dr. Jakrapong Kaewkhao
   Nakhon Pathom Rajabhat University (NPRU), Thailand
2. Assoc. Prof. Dr. Prayoon Songsiriritthigul
   Suranaree University of Technology (SUT), Thailand

International Advisory Committee

1. Prof. Dr. Roy Chantrell (University of York, UK)
2. Prof. Dr. Ko-Wei Lin (Chair, IEEE MagSoc-Taiwan Chapter, Taiwan)
3. Prof. Dr. HongJoo Kim (KNU, Korea)
4. Prof. Dr. Ken Kurosaki (Kyoto University, Japan)
5. Prof. Dr. Kohei Yamanoi (Osaka University, Japan)
6. Prof. Dr. Damir Valiev (Tomsk Polytechnique, Russia)
7. Prof. Dr. C. K. Jayasankar (SVU, India)
8. Prof. Dr. Mitra Djamal (ITB and ITERA, Indonesia)
9. Prof. Dr. Pham Hong Minh (IOP-VAST, Vietnam)
10. Prof. Dr. Amar S. Bhalla (UTSA, USA)
11. Prof. Dr. Yoshiyuki Kawazoe (Tohoku University, Japan)
12. Prof. Dr. Setsuhisa Tanabe (Kyoto University, Japan)
13. Prof. Dr. Gour Prasad Das (India Association for the cultivation of Science, India)
14. Prof. Dr. Yuan Ping Feng (National University of Singapore, Singapore)
15. Prof. Dr. Qian Wang (Peking University, China)
16. Prof. Dr. Jisoon Ihm (Seoul National University, Korea)
17. Prof. Dr. Duc Nguyen-Manh (Culham Centre for Fusion Energy, UK)
18. Prof. Dr. Vladimir Romanovich Belosludov (Inorganic Chemistry Institute, SB-RAS, Russia)
19. Prof. Dr. Purusottam Jena (Virginia Commonwealth University, USA)
20. Prof. Dr. Barbara (Malič Jožef Stefan Institute, Slovenia)

21. Prof. Dr. Jurij Koruza (University of Darmstadt, Germany)
22. Prof. Dr. Susan Trolier-McKinstry (Pennsylvania State University, USA)
23. Prof. Dr. habil. Amitesh Paul (Guangdong Technion-Israel Institute of Technology: Shantou, CN)
24. Prof. Dr. Jurij Koruza, Graz University of Technology, Austria)
25. Prof. Dr. José Antonio Eiras, (Federal University of São Carlos, Brazil)
26. Prof. Dr. Qian Wang (Peking University, Beijing, China)
27. Prof. Dr. Brahim Dkhil (Université Paris-Saclay, France)
28. Prof. Dr. Ahmad Safari (Rutgers University, USA)
29. Prof. Dr. Sea-Fue Wang (National Taipei University of Technology, Taiwan)
30. Prof. Dr. Ebru MENSUR ALKOY (Gebze Technical University, Turkey)
31. Prof. Dr. Sedat Alkoy (Gebze Technical University, Turkey)
32. Dr. Robert William Lamberton (Seagate Technology (Thailand), Thailand)
33. Dr. George W. Taylor (Princeton Resources, USA)
34. Dr. Deborah Taylor (Princeton Resources, USA)
35. Mr. Seiichi Hosotani (Study Interact, Inc)

Executive Advisory Committee

1. Prof. Dr. Tawee Tunkarisi (CMU)
2. Prof. Dr. Pichet Limsuwan (KMUTT)
3. Prof. Dr. Sukit Limpijumnong (IPST)
4. Prof. Dr. Pairot Pramual (MSU)
5. Assoc. Prof. Dr. Hathaikarn Manuspiya (CU)
6. Assoc. Prof. Dr. Saroj Rujirawat (SLRI)
7. Assoc. Prof. Dr. Weerapong Chewpraditkul (KMUTT)
8. Assoc. Prof. Dr. Sirithan Jiemsirilers (CU)
9. Assoc. Prof. Dr. Chaisri Tharasawatdipipat (SSRU)
10. Assoc. Prof. Dr. Sumrit Mopoung (NU)
11. Assoc. Prof. Dr. Sommai Pivsa-Art (RMUTT)
12. Assoc. Prof. Dr. Pongnart Nartvaranant (NPRU)
13. Asst. Prof. Dr. Kantapat Kittiauchawal (TRU)
14. Asst. Prof. Dr. Suraphan Rattanavadi (SSRU)
15. Asst. Prof. Dr. Niti Yongvanich (SU)

16. Dr. Somnuk Sirisoonthorn (NSTDA)
17. Dr. Sumnieng Ongsupankul (RMUTR)
18. Mr. Roong Sivaratana, (KMITL)
19. Mrs. Supannee Hanchansiri (Seagate Technology (Thailand))

Organizing Committee

General Chair: Prof. Dr. Rattikorn Yimnirun (VISTEC)
(Chairs of ACerS and IEEE-MagSoc Thailand Chapters)

General Co-Chairs:
Assoc. Prof. Dr. Jakrapong Kaewkhao (NPRU)
Assoc. Prof. Dr. Prayoon Songsiririthigul (SUT)

Academic Committee

Chair: Prof. Dr. Naratip Vittayakorn (KMITL, Thailand)
Co-Chair: Assoc. Prof. Dr. Phanwadee Chureemart (MSU, Thailand)

1. Prof. Dr. Yoshiyuki Kawazoe (Tohoku University, Japan)
2. Prof. Dr. Rattikorn Yimnirun (VISTEC, Thailand)
3. Prof. Dr. Phan Bach Thang. (Vietnam National University, Vietnam)
4. Prof. Dr. Hansoo Park (Chung-Ang University, Seoul, Republic of Korea)
5. Prof. Dr. Faryad Muhammad ((LUMS), Pakistan)
6. Prof. Dr. Jungho Ryu (Yeungnam University, Korea)
7. Prof. Dr. Sedat Alkoy (Gebze Technical University, Turkey)
8. Prof. Dr. Daeyong Jeong (Inha University, Korea)
9. Prof. Dr. Siriporn Jungsuttiwong (UBU, Thailand)
10. Prof. Dr. Shujun Zhang (University of Wollongong, New South Wales, Australia)
11. Prof. Dr. Lee Oon Jew (University Malaysia Terengganu, Malaysia)
12. Prof. Dr. Ramamoorthy Ramesh (University of California, USA)
13. Prof. Dr. Lane W. Martin (University of California, Berkeley, USA)
14. Prof. Dr. Zuo-Guang Ye (Simon Fraser University, Canada)
15. Prof. Dr. K. C. James Raju (Centre for Advanced Studies in Electronics Science and Technology (CASEST) India)
16. Prof. Dr. Roger W. Whatmore (Imperial College London, UK)

17. Prof. Dr. Hong Joo Kim (KyungPook National University, Korea)
18. Prof. Dr. Satoshi Tanaka (Nagaoka University of Technology, Japan)
19. Prof. Dr. Nagahiro Saito (Nagoya University, Japan)
20. Prof. Dr. CHEW Khian-Hooi (University of Malaya, Malaysia)
21. Prof. Dr. Keat Hoe Yeoh (University of Malaya, Malaysia)
22. Prof. Dr. CHEN Shuting (Institute of Materials Research and Engineering (IMRE) A*STAR, Singapore)
23. Prof. Dr. Han Seul Kim (Korea Institute of Science and Technology Information (KISTI), Republic of Korea)
24. Prof. Dr. Hiroki Matsuo (Kumamoto University, Japan)
25. Prof. Dr. Yuka Takagi (Tokyo University of Science, Japan)
26. Prof. Dr. Wee Chen GAN (Xiamen University Malaysia, Malaysia)
27. Prof. Dr. Ji-Ho Lim (Inha University, Korea)
28. Prof. Dr. Ebru MENSUR ALKOY (Gebze Technical University, Turkey)
29. Assoc. Prof. Dr. Prayoon Songsiriritthigul (SUT, Thailand)
30. Assoc. Prof. Dr. Jakrapong Kaewkhao (NPRU, Thailand)
31. Assoc. Prof. Dr. Jessada Chureemart (MSU, Thailand)
32. Assoc. Prof. Dr. Goh Boon Tong (University of Malaya, Malaysia)

Local Organizing Committee:

Chair: Assoc. Prof. Dr. Narong Sangwaranatee (SSRU, Thailand)
Co-Chair: Dr. Natthapong Wongdamnern (RMUTSB, Thailand)

Committee:

1. Prof. Dr. Rattikorn Yimnirun (Vidyasirimedhi Institute of Science and Technology)
2. Prof. Dr. Arnon Chaipanich (Chiang Mai University)
3. Prof. Dr. Tosawat Seetawan (Sakon Nakhon Rajabhat University)
4. Assoc. Prof. Dr. Jakrapong Kaewkhao (Nakhon Pathom Rajabhat University)
5. Assoc. Prof. Dr. Aurawan Rittidech (Mahasarakham University)
6. Assoc. Prof. Dr. Thiti Bovornratanaraks (Chulalongkorn University)
7. Assoc. Prof. Dr. Udomsilp Pinsook (Chulalongkorn University)
8. Assoc. Prof. Dr. Theerachai Bongkarn (Narasuen University)

9. Assoc. Prof. Dr. Chitnarong Sirisathitkul (Walailak University)
10. Assoc. Prof. Dr. Piya Kovintavewat (Nakhon Pathom Rajabhat University)
11. Assoc. Prof. Dr. Sookhet Pojprapai (Suranaree University of Technology)
12. Assoc. Prof. Dr. Wanchai Pijitrojana (Thammasat University)
13. Assoc. Prof. Dr. Chanon Warisarn (King Mongkut's Institute of Technology Ladkrabang)
14. Assoc. Prof. Dr. Anurak Prasatkhetragarn (University of Phayao)
15. Assoc. Prof. Dr. Anucha Watcharapasorn (Chiang Mai University)
16. Assoc. Prof. Dr. Sukanda Jiansirisomboon (Suranaree University of Technology)
17. Assoc. Prof. Dr. Wisanu Pecharapa (King Mongkut's Institute of Technology Ladkrabang)
18. Assoc. Prof. Dr. Oratai Jongprateep (Kasetsart University)
19. Assoc. Prof. Dr. Jassada Chureemart (Mahasarakham University
20. Asst. Prof. Dr. Sukkaneste Tungasmita (Chulalongkorn University)
21. Asst. Prof. Dr. Komkrit Choorueang (NakhonPhanom University)
22. Asst. Prof. Dr. Sasipohn Praserpalichat (Naresuan University)
23. Asst. Prof. Dr. Atipong Bootchanont (Rajamagala University of Technology Thanyaburi)
24. Asst. Prof. Dr. Thanapong Sareein (Rajamangala University of Technology Phra Nakhon)
25. Asst. Prof. Dr. Sukasem Watcharamaisakul (Suranaree University of Technology)
26. Asst. Prof. Dr. Dujreutai Pongkao Kashima (Chulalongkorn University)
27. Asst. Prof. Dr. Narit Triamnak (Silpakorn University)
28. Dr. Mati Horprathum (NECTEC)
29. Dr. Duangduen Atong (National Metal and Materials Technology Center)
30. Dr. Pinit Kidkhunthod (Synchrotron Light Research Institute)
31. Dr. Pitak Laoratanakul (National Metal and Materials Technology Center)
32. Dr. Natthapong Wongdamnern (Rajamangala University of Technology Suvarnabhumi)
33. Dr. Asanee Suntives (Seagate)
34. Dr. Vitchanetra Hongpinyo (Seagate)
35. Dr. Chittiporn Pupaichitkul (Seagate)
36. Mr. Roong Sivaratana (King Mongkut's Institute of Technology Ladkrabang)
37. Ms. Panadda Jariampan (Seagate)

Conference Chair and Co-Chair

Session 1: Electronic and Magnetic Materials and Magnets
Chair: Assoc. Prof. Dr. Phanwadee Chureemart-MSU
Co-Chairs:
1. Asst. Prof. Dr. Thanapong Sareein-RMUTP
2. Dr. Nuttachai Jutong-CMU

Session 2: Piezoelectric and Dielectric Materials
Chair: Prof. Dr. Arnon Chaipanich -CMU
Co-Chairs:
1. Assoc. Prof. Dr. Sukanda Jiansirisomboon-SUT
2. Dr. Phakkhananan Pakawanit-SLRI

Session 3: Energy and Energy Storage Materials
Chair: Dr. Pitak Laoratanakul-MTEC
Co-Chairs:
1. Asst. Prof. Dr. Saichon Sriphan-KMUTT
2. Asst. Prof. Sasipohn Praserpalichat -NU

Session 4: Bioplastics, Biomaterials, Polymer Composite and Environmental Materials
Chair: Asst. Prof. Dr. Atipong Bootchanont-RMUTT
Co-Chairs:
1. Dr. Duangduen Atong-MTEC
2. Dr. Thitirat Charoonsuk-SWU

Session 5: Computational Materials, Physics and Chemistry, Artificial Intelligence, and Modeling
Chair: Assoc. Prof. Udomsilp Pinsook-CU
Co-Chairs:
1. Assoc. Prof. Thiti Bovornratanaraks-CU
2. Assoc. Prof. Dr. Jessada Jureemart-MSU

Session 6: Ceramics Engineering, Science and Glass Materials and Technology
Chair: Assoc. Prof. Dr. Sirithan Jiemsirilers-CU
Co-Chair:
1. Asst. Prof. Dr. Narun Luewarasirikul-SSRU

Session 7: Metals, Alloys, and Metallurgy Technology and Applications
Chair: Asst. Prof. Dr. Waraporn Piyawit-SUT
Co-Chairs:
1. Asst. Prof. Dr. Kittichai Sojiphan-KMUTNB
2. Asst. Prof. Dr. Narit Triamnak-SU

Session 8: Radiation Physics and Chemistry, Instrumentation and Materials Characterization
Chair: Dr. Pinit Kidkhunthod-SLRI
Co-Chairs:
Asst. Prof. Dr. Wuttichai Chaiphaksa-CMU

Session 9: Nanomaterials, Thick and Thin Films and Surface Sciences
Chair: Assoc. Prof. Dr. Tosapol Maluangnont- KMITL
Co-Chairs:
1. Dr. Mati Horpratum-NECTEC
2. Dr. Phornsawat Baipaywad-CMU
3. Assoc. Prof. Dr. Viyada Harnchana-KKU
4. Prof. Dr. Nisanart Traiphol-CU

Session 10: Materials Processing, Tribology and Coating Technology
Chair: Assoc. Prof. Dr. Anurak Prasatkhetragarn - UP
Co-Chairs:
1. Asst. Prof. Dr. Dujreutai Pongkao Kashima-CU
2. Asst. Prof. Dr. Sukkaneste Tungasmita-CU

Session 11: Engineering Technology for Industrial Applications.
Chair: Prof. Dr. Piya Kovintavewat - NPRU
Co-Chairs:
1. Dr. Panadda jariampan-SEAGATE
2. Mrs. Panadda Jariampan-SEAGATE
3. Dr. Satana Pongampai-KMITL
4. Dr. Asanee Suntives-SEAGATE

Special Session Chair and Co-Chair

1. International Collaboration on Materials Technology Supported by AUN/SEED-Net, JICA
Chair: Assoc. Prof. Dr. Oratai Jongprateep-KU

2. The 100th Anniversary of the Discovery of Ferroelectricity
Chair: Assoc. Prof. Dr. Anucha Watcharapasorn-CMU
Co-Chairs: Assoc. Prof. Aurawan Rittidech-MSU and Dr. Natthapong Wongdamnern-RMUTSB

3. Luminescence Glasses, Crystals and Related Functional Materials for Photonics and Scintillation Material Applications
Chair: Assoc. Prof. Dr.Jakrapong Kaewkhao- NPRU
Co-Chair: Asst. Prof. Dr. Piyachat Meejitpaisan-NPRU

4. Young Professional and Students Division
Chair: Asst. Prof. Dr. Narit Triamnak

5. Special Session: Research 2 Startups
Chair: Assoc. Prof. Dr. Soodkhet Pojprapai-SUT

6. Dedicated to Prof. Dr. Pichet Limsuwan's Life Time Achievements
Chair: Assoc. Prof. Dr.Jakrapong Kaewkhao- NPRU
Co-Chair: Dr. Mati Horprathum – NECTEC

Acknowledgement

Thank you to our plenary, Keynote and Invited speakers

We wish to acknowledge Prof. Dr. Amar S. Bhalla, Prof. Dr. Setsuhisa Tanabe, and Dr. Chris Rea for their plenary presentation on ICAPMA-JMAG2021.

We wish to thank Prof. Dr. Hansoo Park (Chung-Ang University, Seoul, Republic of Korea); Prof. Dr. Yoshiyuki Kawazoe (Tohoku University, Japan); Prof. Dr. Wee-Jun ONG (Xiamen University Malaysia, Malaysia); Prof. Dr. John Wang (NUS Materials Science and Engineering, Singapore); Prof. Dr. Vinich Promarak (Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand); Prof. Dr. Gobboon Lothongkum (Chulalongkorn University, Thailand); Prof. Dr. Tosawat Seetawan (Sakon Nakhon Rajabhat University, Thailand); Prof. Dr. Hathaikarn Manuspiya (Chulalongkorn University, Thailand); Prof. Dr. Siriporn Jungsuttiwong (Ubon Ratchathani University, Thailand); Prof. Dr. Vudhichai Parasuk (Chulalongkorn University, Thailand); Prof. Dr. HongJoo Kim (KyungPook National University, Korea); Prof. Dr. Pham Hong Minh (IOP. Vietnam Academy of Science and Technology, Veitnam); Prof. Dr. C. K. Jayasankar (Sri Venkateswara University, India); Prof. Dr. Poramate Manoonpong (VISTEC, Thailand); Prof. Dr. Atsufumi Hirohata (University of York, USA) ; Prof. Dr. Pranut Potiyaraj (Chulalongkorn University, Thailand); Assoc. Prof. Dr. Prasit Thongbai (Khon Kaen University,Thailand); Assoc. Prof. Dr. Theerachai Bongkarn (Naresuan University, Thailand); Assoc. Prof. Dr. Montree Sawangphruk (Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand); Assoc. Prof. Dr. Prayoon Songsiriritthigul (Suranaree University of Technology, Thailand); Assoc. Prof. Dr. Wisanu Pecharapa (King Mongkut's Institute of Technology Ladkrabang, KMITL, Thailand); Assoc. Prof. Dr. Theerawan Boonyawan (Chiang Mai University, Thailand); Dr. Adisorn Tuantranont (National Science and Technology Development Agency, Thailand); Prof. Dr. Thang Bach Phan (Vietnam National University,Vietnam); Prof. Dr. habil. Amitesh Paul (Guangdong Technion – Israel Institute of Technology Jinping District, Shantou, China); Prof. Dr. DaeYong JEONG (Inha University, KOREA) ; Prof. Dr. CHEW, Khian-Hooi (University of Malaya, Malaysia); Prof. Dr. Keat Hoe Yeoh (Universiti Tunku Abdul Rahman, Malaysia); Prof. Dr. CHEN Shuting (Institute of Materials Research and Engineering (IMRE) A*STAR, Singapore) ;Prof. Dr. Han Seul Kim (Korea Institute of Science and Technology Information (KISTI),Republic of Korea); Prof. Dr. Hiroki Matsuo (Kumamoto University, JAPAN); Prof. Dr. Yuka Takagi (TOKYO UNIVERSITY of SCIENCE, JAPAN); Prof. Dr. Wee Chen GAN (Xiamen University Malaysia Jalan Sunsuria, Bandar Sunsuria, Malaysia); Prof. Dr. Ji-Ho Lim (Inha University, KOREA); Prof. Dr. Phan Bach Thang. (Vietnam National University, Vietnam); Prof Dr. Nisanart Traiphol (Chulalongkorn University, Thailand); Prof. Dr. Nantanit Wanichacheva, (Silpakorn University,Thailand); Prof. Dr. Ebru MENSUR ALKOY (Gebze Technical University, Turkey); Prof. Dr. Sedat Alkoy (Gebze

Technical University, Turkey); Assoc. Prof. Dr. Goh Boon Tong (University of Malaya, Malaysia); Assoc. Prof. Dr. Chatchawal Wongchoosuk (Kasetsart University,Thailand); Assoc. Prof. Dr. Wanchai Pijitrojana (Thammasat University,Thailand); Assoc. Prof. Dr. Soodkhet Pojprapai (Suranaree University of Technology, Thailand); Assoc. Prof. Dr. Prasit Thongbai (Khon Kaen University,Thailand); Assoc. Prof. Dr. Tosapol Maluangnont (King Mongkut's Institute of Technology Ladkrabang, KMITL, Thailand); Assoc. Prof. Dr. Chesta Ruttanapun (King Mongkut's Institute of Technology Ladkrabang, KMITL, Thailand); Assoc. Prof Dr. Rojana Pornprasertsuk-(Chulalongkorn University, Thailand); Assoc. Prof. Dr. Sukasem Watcharamaisakul (Suranaree University of Technology, Thailand); Assoc. Prof. Dr. Winita Punyodom (Chiang Mai University, Thailand); Assoc. Prof. Dr.Theeranun Siritanon (Suranaree University of Technology, Thailand); Assoc. Prof. Dr.Supab Choopun (Chiang Mai University, Thailand); Assoc. Prof. Dr. Viyada Harnchana (Khon Kaen University,Thailand); Assoc. Prof. Dr. Supree Pinitsoontorn (Khon Kaen University,Thailand); Assoc. Prof. Dr. Pakorn Opaprakasit (Thammasat University, Thailand); Assoc. Prof. Dr. Nawee Kungwan (Chiang Mai University, Thailand); Assoc. Prof. Dr. Sukum Eitssayeam (Chiang Mai University, Thailand); Assoc. Prof. Dr. Kamonpan Pengpat(Chiang Mai University, Thailand); Assoc. Prof. Dr. Patarawagee Yasaka(Nakhon Pathom Rajabhat University, Thailand); Assoc. Prof. Dr. Isaratat Phuny-On (King Mongkut's University of Technology Thonburi,Thailand); Assoc. Prof. Dr. Chaikarn Liewhiran (Chiang Mai University, Thailand); Asst. Prof. Dr. Parkpoom Jarupoom (Rajamangala University of Technology Lanna,Thailand); Asst. Prof. Dr. Pongsakorn Kanjanaboos (Mahidol University, Thailand); Asst. Prof. Dr. Krisanat Chuamsaamarkkee-(Mahidol University, Thailand); Asst. Prof. Dr. Krisanat Chuamsaamarkkee (Mahidol University,Thailand); Asst. Prof. Dr. Sukkaneste Tungasmita (Chulalongkorn University, Thailand); Asst. Prof. Dr. Navneet Dabra (PUNJABI UNIVERSITY, PATIALA), Punjab, India; Dr. Surbhi Gupta,(Natural Sciences and Science Education, National Institute of Education, Nanyang Technological University, Singapore); Dr. Hiroshi Mizuseki (Korea Institute of Science and Technology (KIST),Korea); Dr. Ryoji Sahara (National Institute for Materials science (NIMS), Japan);Dr. Darwin Barayang (University of the Philippines, Philippines); Dr. Thitirat Charoonsuk (Srinakharinwirot University,Thailand); Dr. Rongrong Cheacharoen (Chulalongkorn University, Thailand); Dr. Pawin Iamprasertkun (Rajamangala University of Technology Isan, Thailand); Dr. Supawadee Namuangruk (Nanotec,Thailand); Dr. Narong Chanlek (Synchrotron Light Research Institute, Thailand); Dr. Nuanthip Wantana (Nakhon Pathom Rajabhat University,Thailand); Dr. Kitiphat Sinthiptharakoon (NANOTEC, Thailand); Dr. Anchalee Manonukul (MTEC, Thailand) ; Dr. Noppadon Nuntawong (National Electronics and Computer Technology Center, (NECTEC), Thailand); Prof. Dr. Shujun Zhang (University of Wollongong, New South Wales, Australia); Prof. Dr. Lee Oon Jew (Universiti Malaysia Terengganu, Malaysia); Prof. Dr. Ramamoorthy Ramesh (Dept of Materials Science and Engineering University of California, USA); Prof. Dr. Lane W. Martin (Department of Materials Science & Engineering University of California, Berkeley and

Faculty Senior Scientist, Materials Sciences Division Lawrence Berkeley National Laboratory Berkeley, USA); Prof. Dr. Zuo-Guang Ye (Simon Fraser University, Canada); Prof. Dr. K.C. James Raju (Centre for Advanced Studies in Electronics Science and Technology (CASEST) India); Prof. Dr. Roger W. Whatmore (Imperial College London, UK); Prof. Dr. Supon Ananta (Chiang Mai University, Thailand); Prof. Dr. Gobwuit Rujijanagul (Chiang Mai University, Thailand); Prof. Dr. Ahmad Safari, (Rutgers University, USA); Assoc. Prof. Dr. Anurak Prasatkhetragarn (University of Phayao,Thailand); Asst. Prof. Dr.Sasipohn Praserpalichat (Naresuan University, Thailand); Asst. Prof. Dr. Saichon Sriphan (King Mongkut's University of Technology North Bangkok, Thailand); Prof. Dr. Jingsheng CHEN; Asst. Prof. Dr.Nattakan Soykeabkaew; Asst. Prof. Dr. Phitsanu Poolcharuansin; Asst. Prof. Dr. Sutatch Ratanaphan; Assoc. Prof. Dr. Robin Chang Yee Hui; Assoc. Dr. Rajaramakrishna Rajanavaneethakrishna for their presentations as keynote speakers and invited speaker.

Thank you to Academic Committee, Session Chairs and Presenters.

Our biggest thanks go to the more than 450 peoples who contribute their time, knowledge and expertise as academic committee members, session chairs and presenters for ICAPMA-JMAG2021 conference. The names and contributions appear in the body of this program.

Thank you to our staff and volunteers.

We would like to express our sincerest appreciation to our dedicated on-site staff and volunteers for their assistance with pre- conference preparations and support during the conference. Thank you so very much indeed.

ICAPMA - JMAG 2021

Host/Co-Host/Organizer/Co-Organizer/Sponsor

Hosted by

Co-Hosted by

The American Ceramic Society (ACerS)-Thailand Chapter and IEEE-Magnetic Society (MagSoc)-Thailand Chapter

The American Ceramic Society CHAPTER Thailand

ICAPMA - JMAG 2021

IEEE MAGNETICS THAILAND CHAPTER

Organized by

i-STEM

Co-Organized by

Professor Emeritus.com

JTB Perfect moments, always

ACCMS

オンライン海外交換留学アカデミー StudyInteract

Sponsored by

Taylor & Francis Group an informa business

FERROELECTRICS

COAX Quality Scientific Instruments

PUDITEC

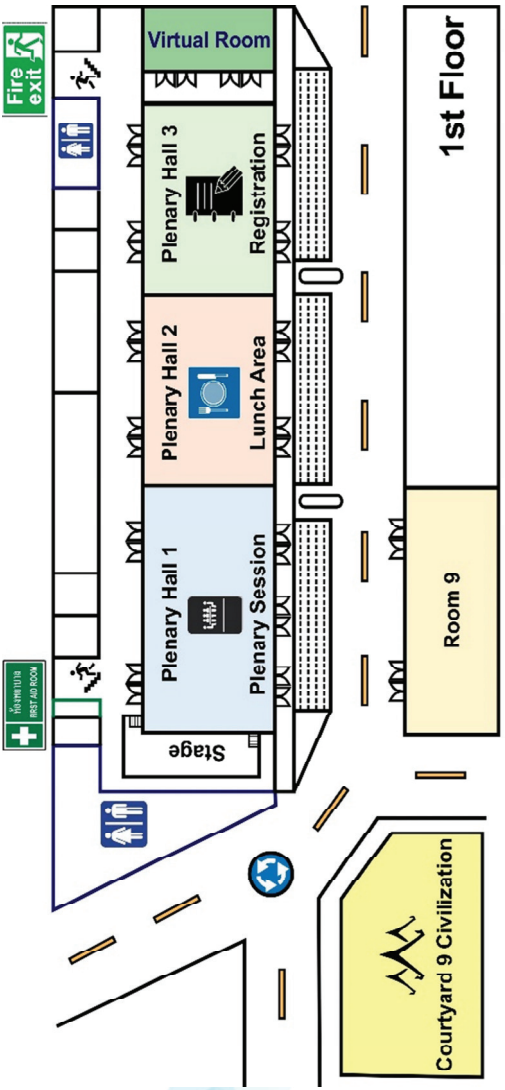
micromachines an Open Access Journal by MDPI

SILVACO

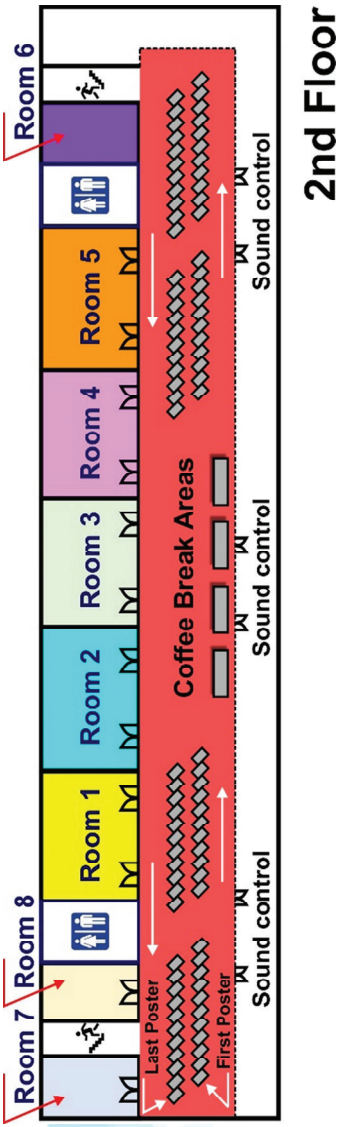
We would like to thank our sponsors and partners for contributing funds and services to ICAPMA-JMAG2021. These contributions allow us to keep registration fees as low as possible.

THANK YOU!

Floor Plans: Meetings | NongNooch Traditional Hall



Floor Plans: Meetings | NongNooch Traditional Hall



NongNooch Pattaya Garden II Map

NongNooch Pattaya Garden & Resort Map

Practical Information

General Information

Registration and Information Desk

The registration and information desk is located in the Plenary Hall II of the Nongnooch Tradition Center (Nongnooch Pattaya Garden II). Operation times are on December 1, 2021 at 13.00-17.00. It stays open during all the sessions. Please contact the registration desk staff if you need assistance during the conference.

Venues

The whole conference takes place in the Nongnooch Tradition Center (Nongnooch Pattaya Garden II). The session rooms are located within the Nongnooch Tradition Center, please see the Map for more details. Session rooms are equipped with projectors with screens, and monitors.

Security

Although the venue is safe, participants should not leave any valuables unattended. The conference organizers cannot be held liable for loss or damage to belongings.

Wi-Fi

Free wireless internet access is available at the conference venue.

Conference Rule

Please wear your nametag at all times-for better networking and sociability. Your nametag is also used to identify you as ICAPMA-JMAG2021 participant with access to all the events.

Social Media

Please keep checking the conference website at https://www.matscitech-thailand.com/2021/index.php for updates. Photographs will be uploaded on a restricted area for the conference participants. Please also visit conference facebook page of ACerS Thailand Chapter at www.facebook.com/AcerSThailand.

Information for On-site Presenters

You will find your presentation uploaded to the laptops in the conference room (in case you have sent them to the organizers). If you had made further changes in your presentation or have not sent it to the organizers earlier, please come to the session/panel room 15 minutes before its start for uploading it. The room assistant with assist you. We do not recommend using your own laptops for presentation.

Setup and Poster session

Poster presentations will take place in the conference hall on the second floor of Nongnooch Tradition Hall on December 2, 2021 at 18.15-19.00 and December 3, 2021 at 16.30-17.30. You are required to set up your poster any time before Noon time of December 2, 2021. The poster will be fixed on the wall with a tape or a 'tack-it'. Please remain at your poster and be ready to discuss your work. The posters can stay on the wall until the end of the poster session on December 3, 2021 and you should remove the poster yourself. In case you do not wish to carry your poster, please contact multimedia service of the conference.

Social Events (all included with the Registration Fee)

Welcome Reception

December 1, 2021: 17.00-19.00 at Thai Village, Nongnooch Pattaya Garden II.

Opening Ceremony

December 2, 2021: 08.30-09.00 at Nongnooch Tradition Center, Nongnooch Pattaya Garden II.

Nongnooch Theater Performance

December 2, 2021: 13.30-15.00 at Nongnooch Theater, Nongnooch Pattaya Garden I.

Dinner Buffet

December 2, 2021: 19.00-21.00 at Nongnooch Tradition Center, Nongnooch Pattaya Garden II.

Banquet

December 3, 2021: 18.30-21.00 at Garden in The Sky Hall, Nongnooch Pattaya Garden I.

Closing Ceremony and Awards

December 4, 2021: 15.00-15.30 at Nongnooch Tradition Center, Nongnooch Pattaya Garden II.

Special Activities

All registered person can attend the special activities, organized during ICAPMA-JMAG, in the topic of

1. International Collaboration on Materials Technology Supported by AUN/SEED-Net, JICA
2. The 100th Anniversary of the Discovery of Ferroelectricity (Fully Online)
3. Luminescence Glasses, Crystals and Related Functional Materials for Photonics and Scintillation Material Applications
4. Young Professional and Students Division
5. Research 2 Startups
6. Special Session Dedicated to Prof. Dr. Pichet Limsuwan's Life Time Achievements

Program Overview

Nongnooch Tradition Center (Nongnooch Pattaya Garden II)	
Day 1: December 1, 2021	
Time	**Schedules**
13:00 - 17:00	Registration (Plenary Hall III; NONGNOOCH TRADITION CENTER;Nongnooch Pattaya Garden II)
17:00 - 19:00	Welcome reception (THAI VILLAGE;Nongnooch Pattaya Garden II)
Day 2: December 2, 2021	
Time	**Schedules**
8:45 - 9:00	Opening Ceremony
9:00 - 10:00	Plenary speaker I Prof. Dr. Amar S. Bhalla, The University of Texas at San Antonio (UTSA), USA Title: A Lesson in the History of Ferroelectrics
10:00 - 10:15	*Morning break*
10:15 - 12:15	Parallel sessions
12:15 - 13:00	*Lunch break*
13:30 - 15:00	THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)
15:00 - 15:15	*Afternoon break*
15:15 - 16:45	Parallel sessions
16:45 - 18:15	Parallel sessions
18:15 - 19:00	**Poster sessions**
19:00 - 20:00	Dinner Buffet
Day 3: December 3, 2021	
Time	**Schedules**
9:00 - 10:00	Plenary speaker II Prof. Dr. Setsuhisa Tanabe, Kyoto University, Japan Title: Rare-earth Doped Glasses for Telecommunication and Lighting
10:00 - 10:15	*Morning break*
10:15 - 12:15	Parallel sessions
12:15 - 13:00	*Lunch break*
13:00 - 14:30	Parallel sessions
14:30 - 14:45	*Afternoon break*
14:45 - 16:15	Parallel sessions
16:30 - 17:30	Poster sessions
18:30 - 21:00	Banquet at GARDEN IN THE SKY (NongnoochPattaya Garden I)
Day 4: December 4, 2021	
Time	**Schedules**
09:00 - 10:00	Plenary speaker III Dr. Chris Rea, Recording Heads Operations Group, Seagate Technology, USA Title: "Heat Assisted Magnetic Recording (HAMR) with Material Applications"
10:00 - 10:15	*Morning break*
10:15 - 12:15	Parallel sessions
12:15 - 13:00	*Lunch break*
13:00 - 14:30	Parallel sessions
15:00 - 15:30	Closing ceremony & awards (NONGNOOCH TRADITION CENTER;Nongnooch Pattaya Garden II)

Meeting Room Schedule

MEETING ROOM SCHEDULE							
	1st December 2021	2nd December 2021		3rd December 2021		4th December 2021	
Plenary Hall I		8:45-9:00	Open ceremony				
		9:00-10:00	Plenary Lecture I	9:00-10:00	Plenary Lecture II	9:00-10:00	Plenary Lecture III
						15:00	Closing ceremony & awards
Plenary Hall II		12:00-13:00	Lunch	12:00-13:00	Lunch	12:00-13:00	Lunch
Plenary Hall III	12:00-18:00 Registration	9:00-16:00	Registration	9:00-16:00	Registration	9:00-16:00	Registration
ROOM 1		10:15 - 12:15	Session 1	10:15-12:15	Session 1	10:15-12:15	
		15:15-16:45	Session 1	13:00-14:30	Session 1	13:00-14:30	
		16:45-18:15	Session 1	14:45-16:15			
ROOM 2		10:15 - 12:15	Session 2	10:15 - 12:15	Session 2	10:15 - 12:15	Session 11
		15:15-16:45	Session 2	13:00-14:30	Session 2	13:00-14:30	
		16:45-18:15	Session 2	14:45-16:15	Session 7		
ROOM 3		10:15 - 12:15	Session 3	10:15 - 12:15	Session 3	10:15 - 12:15	Session 7
		15:15-16:45	Session 3	13:00-14:30	Session 3	13:00-14:30	Session 7
		16:45-18:15	Session 3	14:45-16:15	Session 3		
ROOM 4		10:15 - 12:15	Session 4	10:15 - 12:15	Session 4	10:15 - 12:15	
		15:15-16:45	Session 4	13:00-14:30	Session 4	13:00-14:30	
		16:45-18:15	Session 4	14:45-16:15	Session 4		
ROOM 5		10:15 - 12:15	Session 9	10:15 - 12:15	Session 9	10:15 - 12:15	Session 6
		15:15-16:45	Session 9	13:00-14:30	Session 9/10	13:00-14:30	
		16:45-18:15	session 9	14:45-16:15	Session 9/10		
ROOM 6		10:15 - 12:15	Session 5	10:15 - 12:15	Session 5	10:15 - 12:15	
		15:15-16:45	Session 5	13:00-14:30	Session 6	13:00-14:30	
		16:45-18:15	Session 5	14:45-16:15	Session 6		
ROOM 7		10:15 - 12:15	Session 14 (Parallel sessions)	10:15 - 12:15	Session 8	10:15 - 12:15	Session 8
		15:15-16:45	Session 14 (Parallel sessions)	13:00-14:30	Session 8	13:00-14:30	
		16:45-18:15	Session 14 (Parallel sessions)	14:45-16:15	Session 8		
ROOM 8		10:15 - 12:15	Session 14 (Parallel sessions)	10:15 - 12:15		10:15 - 12:15	
		15:15-16:45	Session 14 (Parallel sessions)	13:00-15:00	Special Session Research to Startup	13:00-14:30	ACerS /IEEE MagSoc Annal Meeting
		16:45-18:15	Session 14 (Parallel sessions)				
Room 9		10:15 - 12:15	Special session: AUN/SEED-Net, JICA	10:15 - 12:15	Special session: AUN/SEED-Net, JICA	10:15 - 12:15	Special Session: Young Professional and Students Division
		15:15-16:45	Special session: AUN/SEED-Net, JICA	13:00-14:30	Special Session: Young Professional and Students Division	13:00-14:30	
		16:45-18:15	Special session: AUN/SEED-Net, JICA	14:45-16:15	Special Session: Young Professional and Students Division		
ห้องประชุมหมู่บ้าน 9 อารยธรรม				13:00-16:30	Special Session Dedicated to Prof.Dr.Pichet Limsuwan's Life Time Achievements		
Virtual Room (ZOOM APPLICATION)		10:15 - 12:15	The special session on 100-year Discovering of Ferroelectricity Celebration	10:15 - 12:15	The special session on 100-year Discovering of Ferroelectricity Celebration		
		15:15-16:45	The special session on 100-year Discovering of Ferroelectricity Celebration	13:00-14:30	The special session on 100-year Discovering of Ferroelectricity Celebration		
		16:45-18:15	The special session on 100-year Discovering of Ferroelectricity Celebration	14:45-16:15			

PLENARY SPEAKER I

Prof. Dr. Amar S. Bhalla

Department of Electrical and Computer Engineering, The University of Texas at San Antonio (UTSA), USA

Amar Bhalla is Distinguished Research Professor of Electrical and Computer Engineering at University of Texas at San Antonio (San Antonio, Tx) since 2007. His professional career also includes more than thirty years of research, teaching, and service as Professor (Electrical Engineering) and Senior Scientist (Materials Research Institute) at The Pennsylvania State University (University Park, Pa) from 1975 to 2007. He served as a National Science Foundation Program Director in the Division of Materials Research (1993-96) and held over 15 distinguished visiting professor/scientist assignments around the globe. He also participated with the team conducting 'Materials Processing in space under zero-gravity environment' at NASA's Marshall Space Flight Center as a National Research Council Research Fellow, National Academy of Science. Bhalla's contribution on various aspects of basic and applied electronic ceramic materials research is detailed in his more than 700 journal publications, especially in pyroelectrics, piezoelectrics, tunable microwave dielectrics, relaxor ferroelectrics, bioferroics and size dependent properties of ferroics and multiferroics, among many others. Bhalla has organized over 70 scientific meetings, conferences and symposia in the field. He has served as Editor, Associate Editor, or as Editorial Board Members on several international journals. An ACerS member since 1981, Bhalla has served as Chair of Electronics Division (1992-1993) and ACerS Trustee (1998-2002). Bhalla is recognized by the Society Fellow designation (1990), Edward C. Henry Award for 'the best paper of last ten years' (1993) and ACerS Global Ambassador Award (2016). He is also a member or Fellow of several other professional societies.

A Lesson in the History of Ferroelectrics

Amar Bhalla[1], Avadh Saxena* and Ruyan Guo[1]

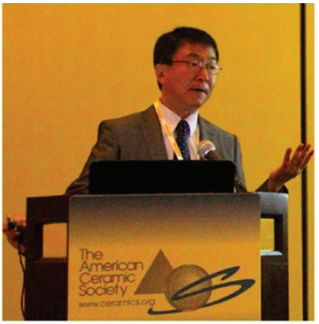
Department of Electrical and Computer Engg., University of Texas at San Antonio, San Antonio, Tx, USA
**Theoretical Division, Los Alamos National Lab., Los Alamos, New Mexico, USA*
Email: amar.bhalla@utsa.edu

Abstract

The piezoelectric and pyroelectric behaviors were identified in certain materials well before over hundred years. In 1920, Joseph Valasek showed for the first time, the hysteresis behavior in the electrical polarization vs applied electric field (Phys. Rev. 17, 475 (1921) in Rochelle salt which was later called as Ferroelectricity in the 1930s. Before this observation, several researchers had discovered the similarity in their measurements of dielectric and optical properties on specific materials but their attempts always ended up one step short of the goal line of 'ferroelectricity'. Over the period of last several decades, the fundamentals of ferroelectricity have been developed, many important applications have emerged which have positively impacted our everyday lives. The phenomenon has so far influenced in many ways a number of disciplines of science and technology. This talk will provide a historical lesson on the past (including the pre-discovery of the hysteresis behavior) and the presently ongoing expansion of the field of ferroelectrics as well as its continuous impact on several emerging fields of science and technology.

Keywords: Ferroelectrics

PLENARY SPEAKER II



Prof. Dr. Setsuhisa Tanabe

Graduate School of Human and Environmental Studies Division of Materials Function, Kyoto University Sakyo-ku, JAPAN

Setsuhisa Tanabe is a Professor of Material Chemistry at Graduate School of Human and Environmental Studies, Kyoto University, Japan. He received his PhD in 1993 at Department of Industrial Chemistry, Kyoto University, where he earned B.S. and M.S degrees also. After working as an assistant professor, he became an Associate Professor in 2001 and was promoted to a full Professor in 2008. He was a visiting scientist at Rutgers University, NJ during 1996-1997, an invited professor at University of Rennes I, France in 2010 and 2016, and at University of Gdansk, Poland in 2019.

He is the author of >270 original papers, >25 book chapters, and >40 review papers on rare-earth doped luminescent materials for upconversion lasers, optical fiber amplifier for telecommunication, LED phosphors and persistent phosphors. He has served as a plenary, keynote or invited speaker at >140 international conferences and at >200 domestic meetings & seminars. He was awarded W.E.S. Turner Award from ICG in 2012 as well as several Academic Awards from The Ceramic Society of Japan, The Chemical Society of Japan, The Rare-Earth Society of Japan and so on. He is also a Fellow of SPIE. He now serves as an Editor of Journal of Luminescence.He joined ACerS in 1996, has been active in Glass and Optical Material Division and served as an organizer at many Meetings including GOMD. He is the recipient of Darshana and Arun Varshneya Frontier of Glass Science Award of ACerS and gave its Lecture at GOMD Meeting in 2018.

Rare-earth Doped Glasses for Telecommunication and Lighting

Setsuhisa Tanabe

Graduate School of Human and Environmental Studies,
Kyoto University, Kyoto, Japan

Abstract

Following the development of optical fiber networks of low-loss silica fiber and needs of large-capacity telecommunication by the wavelength-division multiplexing (WDM) technology, various kind of fiber amplifiers were invented for different wavelength regions from O- to U- bands. Erbium, praseodymium and thulium were three representative active center ions, where the f-f luminescent transitions at each key band require different properties for their host glasses, which are strongly correlated with the 4f energy level structures.

After the invention of InGaN-based blue LED, the white LED lamps were invented in the very late 1990s, which has also driven the revolution in the lighting technologies in this 21st century. Most of LED lamps are a phosphor-converting type, in which the 5d→4f transitions of Ce^{3+} or Eu^{2+} doped phosphors play critical role, which can achieve broad and widely tunable luminescence in the whole visible range with large cross section. This talk will review the development histories of rare-earth doped materials for these two different technologies on the basis of required properties and design concepts as well as their future prospects.

PLENARY SPEAKER III

Dr. Chris Rea

Recording Heads Operations Group, Minneapolis, Minnesota, USA. Seagate Technology, USA

Dr. Chris Rea got BSc in Physics and Applied Mathematics and PhD on "Surface Plasmons on High temperature Superconductors", from the Queens University of Belfast, Northern Ireland, Visiting researcher University of Hamburg. Dr. Rea has 25 years of experience working in linear tape recording, rotating magnetic storage, and most recently as Principal Engineer and Manager in the Recording Physics and Integration team for Heat Assisted Magnetic Recording (HAMR), located at Recording Heads Operations group, Minneapolis, Minnesota, USA.

He is a Senior IEEE member, Past Chair and Treasurer for IEEE Magnetics Section, Twin cities, USA (Mag33), Treasurer for TMRC 2015-18. Chair TMRC 2019. Treasurer MMM/Intermag. 2022. He has over 30 published papers in magnetic recording and photonics and over 20 published Patents, Patent Hall of fame recipient, Seagate Technology.

Heat Assisted Magnetic Recording (HAMR) with Material Applications

Chris Rea

Recording Heads Operations Group, Minneapolis, Minnesota, USA. Seagate Technology, USA

Abstract

In the last 50 years since the introduction of rotating magnetic storage, the information density on the devices to store your data has grown 8 orders of magnitude. All the while, the technology employed moved from the laboratory to WalMart shelves. This talk is broken down into 3 levels. We discuss the driving factors and demand for digital storage, the mechanics and scale of how a hard disk drive functions and narrow in on a new technology- Heat Assisted Magnetic Recording. Heat assisted recording offers an exciting confluence of nano-photonics, material science, and magnetic recording physics. We provide guidance on research directions and material space that is important for HAMR nano-Photonics and high-performance reader designs that will advance the storage density space.

Instruction and Oral Presentation Program

Instruction for Oral Presentation

You are requested to upload your presentation file in your presenting room at least 3 hours before your presentation time. Your files will be completely removed after finishing the session.

Audio-Visual Equipment

Each meeting room comes equipped with a computer, LCD projector, screen, and laser pointer. The computers will be configured with Windows 10 Operating System as well as with Microsoft Office and Adobe Acrobat Reader. Please bring your presentation files in thumb drives / flash drives only.

Length of Presentation:

Total presentation duration including Q&A is 15 minutes for each contributed talk, 30 minutes for invited talk and keynote talk. You are requested to be at the presentation room at least 15 minutes before the session starts.

Poster Presentation and Display Schedule

1. Authors are responsible for setting up their poster on Tuesday evening, December 1, 2021 and removing it end of the Thursday evening, December 3, 2021.
2. There will be 2 poster sessions, one on each day, from Wednesday 2 to Thursday 3 December 2021.
3. Posters will be grouped by topic and Each poster board will be identified by a poster number. Please refer to the Final Program book to confirm the number assigned to your poster presentation.
4. Posters will be displayed all day.
5. Authors are asked to present their posters during the poster presentation sessions 18:15 to 19:00 on December 2, 2021 and 16:30 to 17:30 on December 3, 2021, to discuss their findings with participants and answer any questions.

Oral Presentation Schedule

Oral Presentation Schedule
December 2, 2021

Day 2: December 2, 2021			
Room 1			
Session 1	**Electronic and Magnetic Materials and Magnets**		
Session Chair	**Dr Nuttachai Jutong**		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker I (Prof. Dr. Amar S. Bhalla, The University of Texas at San Antonio (UTSA), USA) ***Title: A Lesson in the History of Ferroelectrics***			
10:15-10:45	Keynote	Prof. Dr. Vinich Promarak	DEVELOPMENT OF HIGH-EFFICIENCY AND STABLE PEROVSKITE SOLAR CELLS (PSC)
10:45 - 11:15	Invited Speaker	Prof. Dr. Jingsheng CHEN	Symmetry-dependent field-free switching of perpendicular magnetization
11:15 - 11:30	S1_O22	Mr. Nuttapong Chantanop	TRIPLET-TRIPLET ANNIHILATION MATERIALS BASED ON CHRYSENE AND TRIPHENYLENE CHROMOPHORES AS DEEP BLUE EMITTERS FOR EFFICIENT NON-DOPED OLEDs
11:30-11:45	S1_O23	Ms. Suwapat Kongsabay	AN EFFICIENT SOLUTION-PROCESSABLE HYBRIDIZED LOCAL AND CHARGE-TRANSFER (HLCT)-BASED DEEP-RED FLUORESCENT EMITTER FOR SIMPLE STRUCTURED NON-DOPED OLEDs
11:45 - 12:00	S1_O9	Ms. Khanitta Yuanmae	The impact of grain size on Curie temperature distribution and magnetization reversal.
12:00 - 12:15	S1_O24	Dr. Kittiya Thunsiri	Design and Development of 3D Rotational Bioreactor for 3D Cell Culture
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			
Session Chair	**Dr. Poramed Wongjom**		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
15:15 - 15:45	Keynote	Dr. Adisorn Tuantranont	2D and 3D Graphene in Beyond Lithium Energy Storages
15:45 - 16:15	Invited Speaker	Dr. Surbhi Gupta	Physics and Applications of Spin-Transport Measurements
16:15 - 16:30	S1_O16	Assoc. Prof. Udomsilp Pinsook	Essential Features of Spectral Function and Their Impacts on Superconducting Critical Temperature
16:30 - 16:45	S1_O12	Mr. kritsada thaengthong	Growth of Fe-Si compound on Si(001) controller by gradient DC-sputtering
Session Chair	**Assoc. Prof. Dr. Wanchai Pijitrojana**		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
16:45 - 17:15	Keynote	Prof. Dr. Atsufumi Hirohata	Search for New Ferromagnetic Thin Films Using Machine Learning
17:15 - 17:45	Invited Speaker	Assoc. Prof. Dr. Supab Choopun	Perovskite Solar Cells Based on Nickel Compound Quantum Dots
17:45 - 18:00	S1_O10	Mr. Pattarapon Robtaisong	Proportional Integral Derivative Control in Heating System for Spin-Exchange Relaxation-Free Atomic Magnetometer
18:00 - 18:15	S1_O6	Dr Poramed Wongjom	The observation of spin Seebeck effect in opposite spin Hall angle materials of polycrystalline bulk-Fe3O4/(Co/Fe) systems
Poster sessions			
Dinner Buffet			

Day 2: December 2, 2021			
Room 2			
Session 2	**Piezoelectric and Dielectric Materials**		
Session Chair	**Assoc. Prof. Dr. Sukanda Jiansirisomboon-SUT**		
Session Co-Chair	**Dr. Phieraya Pulphol, KMITL**		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker I (Prof. Dr. Amar S. Bhalla, The University of Texas at San Antonio (UTSA), USA) Title: A Lesson in the History of Ferroelectrics			
10:15-10:45	Keynote	Assoc. Prof. Theerachai Bongkarn	COMBUSTION TECHNIQUE SYNTHESIS AND CHARACTERIZATION OF NEW LEAD-FREE BNKLLT-BCTZ-KNLNST SYSTEM CERAMICS
10:45 - 11:15	Invited Speaker	Assoc. Prof. Soodkhet Pojprapai	ENERGY HARVESTING OF BCZT/CNTs/PDMS COMPOSITE AND ITS APPLICATION
11:15 - 11:45	Invited Speaker	Asst.Prof.Dr. Parkpoom Jarupoom	ENHANCED ELECTRICAL, ENERGY STORAGE EFFICIENCY AND ENERGY HARVESTING PERFORMANCES OF LEAD-FREE BMgT MODIFIED BNT PIEZOELECTRIC CERAMICS
11:45 - 12:00	S2_O2	Mr. Thanakrit Theethuan	Synthesis and Characterization of BCZT/BT Bilayer Ceramics
12:00 - 12:15	S2_O13	Prof. Emeritus Dr. Seiji Kojima (Virtual)	TERAHERTZ TIME-DOMAIN SPECTROSCOPIC ELLIPSOMETRY OF METALLIC STRONTIUM TITANATE
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			
Session Chair	**Assoc. Prof. Theerachai Bongkarn-NU**		
Session Co-Chair	**Asst.Prof.Dr. Parkpoom Jarupoom**		
Time	**Abstract Code**	**Author**	**Title**
15:15 - 15:45	Invited Speaker	Prof. Dr. DaeYong JEONG (Virtual)	Crystalline/Amorphous PZT of Same Composition Nano-Composite for Ultrahigh Breakdown Strength
15:45 - 16:15	Invited Speaker	Dr. Yuka Takagi (Virtual)	Quenching Effects for Depolarization Temperature and Phase Transition Behavior on (Bi0.5Na0.5)TiO3-based Ceramics
16:15 - 16:30	S2_O11	Miss Natthawadi Buatip	INVESTIGATION OF LEAD–FREE BCZT PIEZOELECTRIC CERAMIC FOR ENERGY HARVESTING PERFORMANCE UNDER MECHANICAL LOAD FORCE
16:30 - 16:45	S2_O3	Mr. Nuttanan Tanasanchai	ACTIVE VIBRATION ISOLATOR USING PIEZOELECTRIC ACTUATOR
Session Chair	**Assoc. Prof. Dr. Sukanda Jiansirisomboon-SUT**		
Session Co-Chair	**Dr. Phakkhananan Pakawanit-SLRI**		
Time	**Abstract Code**	**Author**	**Title**
16:45 - 17:15	Invited Speaker	Dr. Thitirat Charoonsuk	THE ROLE OF PIEZOELECTRIC MATERIALS FOR HYBRID PIEZOELECTRIC-TRIBOELECTRIC NANOGENERATOR
17:15 - 17:45	Invited Speaker	Dr Wee Chen Gan (Virtual)	Unraveling the effects of piezoelectric polarization on the surface charge density of hybrid-piezo/triboelectric nanogenerator
17:45 - 18:00	S2_O17	Dr. Satana Pongampai	Tailoring Temperature Stability in Ultralow Loss (Ba/Sr) Zirconate Microwave Dielectric
18:00 - 18:15	S2_O15	Mr. Pathit Premwichit	Structural, Ferroelectric, and Electrical Conductivity Properties of Nb-doped BNT-BT Lead-free Piezoceramics
Poster sessions			
Dinner Buffet			

Day 2: December 2, 2021			
Room: 3			
Session: 3	Energy and Energy Storage Materials		
Session Chair:	Dr. Pitak Laoratanakul-MTEC		
Session Co-Chair	Asst.Prof.Dr.Sasipohn Prasertpalichat		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker I (Prof. Dr. Amar S. Bhalla, The University of Texas at San Antonio (UTSA), USA) ***Title: A Lesson in the History of Ferroelectrics***			
10:15-10:45	Keynote	Assoc. Prof. Dr.Montree Sawangphruk	CORE-SHELL NI-RICH NMC811 CATHODE FOR HIGH-PERFORMANCE LI-ION BATTERIES
10:45 - 11:15	Invited Speaker	Assoc. Prof. Dr. Rojana Pornprasertsuk	RECYCLED Zn AND MnO2 FROM SPENT PRIMARY BATTERIES TO BE RE-UTILIZED IN RECHARGEABLE Zn-ION BATTERY
11:15 - 11:30	S3_01	Miss Piyapond Makming	Utilization of Zinc-doped Nickel Oxide Hole-transporting Materials to Improve Efficiency and Stability of Perovskite Solar Cells.
11:30-11:45	S3_O2	Miss Napassorn Kietisirirojana	Development of Modified Carbon from Biomass Gold Beard Grass Pollen as an Electrode Material for Supercapacitor Application.
11:45 - 12:00	S3_O8	Assoc. Prof. Dr Tawat Suriwong	Effect of Ag doping on structural, optical, and electrical properties of Ca3Co4O9 prepared by sol-gel auto combustion method
12:00 - 12:15	S3_O27	Mr. Suthep Simala	The Comparison of Heat Transfer from Temperature Difference from Height to Productivity of 10 kW Carport Solar Roof Power Generation System
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			
Session Chair	Dr. Pawin Iamprasertkun		
Session Co-Chair	Asst.Prof.Dr.Saichon Sriphan		
Time	**Abstract Code**	**Author**	**Title**
15:15 - 15:45	Invited Speaker	Assoc. Prof. Dr. Thang Phan	Effects of residual stresses on thermoelectric properties of oxide thin films
15:45 - 16:15	Invited Speaker	Assoc. Prof Dr. Boon Tong Goh	Fabrication of Nanowire-based Electrode Materials for Improving Photoelectrochemical Water Splitting Performance
16:15 - 16:30	S3_O3	Miss. Napatsorn Kaewluang	Synthesis of Na(Fe1-xAlx)PO4 cathode materials in high performance sodium lithium battery
16:30 - 16:45	S3_O5	Miss suchanat suttison	Study of High-performance cathode LFP doped heterogeneity for Lithium-ion batteries
Session Chair	Asst.Prof.Dr.Saichon Sriphan		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
16:45 - 17:15	Invited Speaker	Asst. Prof. Dr. Pongsakorn Kanjanaboos	Thin Films for Energy Applications: Perovskite Solar Cells and Radiative Cooling Films
17:15 - 17:45	Invited Speaker	Assoc. Prof. Dr. Chesta Ruttanapun	Enhancing Thermoelectric Properties of Bi2Te3 with Reduced Graphene Oxide (rGO) Nanocomposites by Modulation of Charge Transport at Grain Boundaries Interfaces
17:45 - 18:00	S3_O6	Mr. Krit YANTABUTR	Phase Characteristics, Microstructure, and Electrical Properties of BCT-BT Ceramics
Poster sessions			
Dinner Buffet			

Day 2: December 2, 2021			
Room 4			
Session 4	**Bioplastics, Biomaterials, Polymer Composite and Environmental Materials**		
Session Chair	**Prof. Dr.Vudhichai Parasuk**		
Session Co-Chair	**Dr. Thitirat Charoonsuk**		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker I (Prof. Dr. Amar S. Bhalla, The University of Texas at San Antonio (UTSA), USA) ***Title: A Lesson in the History of Ferroelectrics***			
10:15-10:45	S4_O25	Keynote:Prof. Dr.Pranut Potiyaraj	3D Printing of Bioplastics Tenary Blends
10:45 - 11:15	S4_O4	Invited Speaker: Assoc. Prof. Dr.Supree Pinitsoontorn	Hard Magnetic Membrane Based on Bacterial Cellulose – Barium Ferrite Nanocomposites
11:15 - 11:30	S4_O2	Assoc. Prof. Dr.Keeratikan Piriyakul	CBR Enhancement in Laterite admixed Metakaolin Geopolymer
11:30-11:45	S4_O1	Ms.Sirapat Boonsirijarungragh	Development of Customized Biodegradable Mesh Membrane for Dental Bone Graft Using Three-Dimensional Printing Technique
11:45 - 12:00	S4_010	Miss Saryrung Khumtrong	Preparation and Characterization of Carboxymethylcellulose Film from Longkong Peel
12:00 - 12:15	S4_O41	Ms.Paveena Tikakosol	Improvement of the Melt Strength of PLGA by Incoporation of a Phosphite Chain Extender for Use in Bone Fixation Devices
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			
Session Chair	**Dr. Thitirat Charoonsuk**		
Session Co-Chair	**Dr. Chakkaphan Wattanawikkam**		
Time	**Abstract Code**	**Author**	**Title**
15:15 - 15:45	S4_O31	Invited Speaker:Prof. Dr.Vudhichai Parasuk	Curving of Graphene-Like Structure by External Electric Field
15:45 - 16:15	S4_O27	Invited Speaker:Assoc. Prof. Dr.habil. Amitesh Paul	Topologically Stabilized Spin Configurations in Rare-Earth Based Systems Using Polarized Neutron Scattering
16:15 - 16:30	S4_O5	Mr.Setthapong Senarat	Fluid Properties of Various Eudragit Solutions in Different Solvent Systems for Periodontal Pocket Injection
16:30 - 16:45	S4_O6	Mr.Nutdanai Lertsuphotvanit	Morphological and Physicochemical Behaviors of Borneol Precipitates
Session Chair	**Prof. Dr.Vudhichai Parasuk**		
Session Co-Chair	**Assoc. Prof. Dr.Supree Pinitsoontorn**		
Time	**Abstract Code**	**Author**	**Title**
16:45 - 17:15	S4_O30	Invited Speaker:Asst. Prof. Dr.Nattakan Soykeabkaew	Waste to Wealth: Tackling The Agricultural Wastes in Thailand to Make Fully Recyclable Packaging
17:15 - 17:45	S4_O42	Invited Speaker:Assoc. Prof. Dr.Winita Punyodom	Surface Modification of Polypyrrole-coated PLA-based Nerve Guide Conduits for Peripheral Nerve Tissue Engineering
17:45 - 18:00	S4_07	Miss Kattaliya Chaipisan	Investigation of Physical and Thermal Properties of Perlite-Mortar Composites
Poster sessions			
Dinner Buffet			

Day 2: December 2, 2021			
Room 6			
Session 5: Computational Materials, Physics and Chemistry, Artificial Intelligence, and Modeling			
Session Chair	**Assoc. Prof. Dr. Udomsilp Pinsook**		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker I (Prof. Dr. Amar S. Bhalla, The University of Texas at San Antonio (UTSA), USA) ***Title: A Lesson in the History of Ferroelectrics***			
10:15-10:45	S5_O9	Prof. Siriporn Jungsuttiwong	Recyclable Hydrogen Storage System Based on Formic Acid: A mechanistic DFT study
10:45-11:15	S5_O6	Assoc. Prof. Dr. Nawee Kungwan	Excited state intramolecular proton transfer (ESIPT) from principal photophysics to the development of new chromophores and applications in fluorescent probes and luminescent materials
11:15-11:30	S5_O1	Asst. Prof. Dr. Prathan Buranasiri	PHASE-MATCHED SECOND-HARMONIC GENERATION IN CORE-SHELL NANOWIRE HYPERBOLIC METAMATERIAL
11:30-11:45	S5_O15	Miss Nichapat Rattanapan	SELECTING DENTAL BRIDGE AND ABUTMENT TYPES FOR IMPLANT-SUPPORTED BRIDGE RESTORATION A FINITE ELEMENT ANALYSIS
11:45 - 12:00	S5_O16	Dr.Thodsaphon Lunnoo	In Silico and In Vitro Study the Mechanism of Colorimetric sensor for Bladder Cancer Detection
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			
Session Chair	**Assoc. Prof. Dr. Worasak Sukkabot**		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
15:15 - 15:45	S5_O10	Dr. Noppadon Nuntawong	Highly sensitive detection of radiation defects in GaAs using Raman spectroscopy with multivariate data analysis and machine learning
15:45 - 16:15	S5_O11	Dr. Supawadee Namuangruk	Effect of 3d-transition metals doped in ZnO monolayers on the CO2 electrochemical reduction: a DFT study
16:15 - 16:30	S5_O12	Dr. Prajya Tangjitsomboon	Relationship between capacitance and plasma electron temperature measured from 50 Hz Alternating current generate argon plasma jet
16:30 - 16:45	S5_O14	Dr. Salakjit Blanchard	Investigation on the Structure and Electrical Properties of Silica Dispersion in Rubber Composites Containing Cavities
Session Chair	**Asst. Prof. Dr. Sukkaneste Tungasmita**		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
16:45 - 17:15	S5_O3	Asst. Prof. Dr. Keat Hoe Yeoh (Virtual)	Two-dimensional Be2C as a high capacity electrode material for lithium-ion batteries: A first-principles study
17:15 - 17:45	S5_O4	Assoc. Prof. Dr. Khian-Hooi Chew (Virtual)	Suppression of Oxidation in Perovskites CH3NH3PbI3 by Lithium-ion Endohedral Fullerenes Li+@C60
17:45 - 18:00	S5_O7	Assoc. Prof. Dr. Worasak Sukkabot	Shape-dependent nanocrystals with interesting electronic structures and optical properties: Atomistic tight-binding theory
18:00 - 18:15	S5_O2	Mr. KRITSADA SEANGNGOEN	Effect of Natural Fibers Concentration on Mechanical and Physical Properties of Fiber Cement
Poster sessions			
Dinner Buffet			

Day 2: December 2, 2021			
Room 5			
Session 9	Nanomaterials, Thick and Thin Films and Surface Sciences		
Session Chair	Assoc. Prof. Dr. Tosapol Maluangnont (KMITL)		
Session Co-Chair	Dr. Mati Horprathum (NECTEC)		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker I (Prof. Dr. Amar S. Bhalla, The University of Texas at San Antonio (UTSA), USA) Title: A Lesson in the History of Ferroelectrics			
10:15-10:45	S9_O26	Keynote: Assoc. Prof. Dr. Wisanu Pecharapa	Ultrasonic-assisted Synthesis Process of Functional Metal-oxide Based Nanomaterials for Optical Energy Harvesting Applications
10:45-11:00	S9_O1	Dr. Siriwat Alaksanasuwan	Structural and Oxidation Behavior of Nanocomposite TiCrN Thin Films
11:00-11:15	S9_O5	Mr. Pathomporn Junbang	Effects of sputtering power of Ti films on morphology of TiO2 nanotubes synthesized via anodization process
11:15 - 11:30	S9_O6	Miss Kanyarat Kumnoedauy	Preparation, Characterization and Antiradical Activity of Zinc Oxide Nanoparticles
11:30 - 11:45	S9_O14	Dr. Jiho Lim (virtual)	Single crystal growth behavior of highly distorted nano grains in BaTiO3 ceramics films fabricated by aerosol deposition
11:45 - 12:00	S9_P34	Mr.Mongkol Kongtungmon	Effect of Annealing Atmosphere on Physical and Electrical Properties of MgO Thin Film in Tunneling Magnetoresistance Sensor
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			
Session Chair	Dr. Phornsawat Baipaywad (CMU)		
Session Co-Chair	Assoc. Prof. Dr. Wisanu Pecharapa (KMITL)		
Time	**Abstract Code**	**Author**	**Title**
15:15 - 15:45	S9_O22	Keynote: Prof. Hansoo Park (virtual)	Fabrication and characterization of biomimetic nanoparticles
15:45 - 16:15	S9_O21	Invited speaker: Assoc. Prof Dr Viyada Harnchana	DEVELOPMENT OF CEMENT-BASED TRIBOELECTRIC NANOGENERATOR FOR HARVESTING LARGE-SCALE MECHANICAL ENERGY
16:15 - 16:30	S9_O7	Mr Suwat Romphosri	Investigative study of two-photon polymerization of Irgacure-784 doped poly (methyl methacrylate) with an Nd: YAG nanosecond laser
16:30 - 16:45	S9_O9	Miss Pacharamon Somboonsaksri	The controlling power of oxygen plasma treated-ZnO nanostructure template for 3D-hybrid structured reusable surface-enhanced Raman scattering substrates
Session Chair	Assoc. Prof. Dr. Tosapol Maluangnont (KMITL)		
Session Co-Chair	Assoc.Prof.Dr. Chaikarn Liewhiran (CMU)		
Time	**Abstract Code**	**Author**	**Title**
16:45 - 17:15	S9_O15	Invited speaker: Asst.Prof.Dr. Phitsanu Poolcharuansin	Reactive magnetron sputtering operated in the transition region using a feedback control approach for compound coatings
17:15 - 17:45	S9_O19	Invited sperker: Asst Prof Dr. Theeranun Siritanon (Virtual)	Promoting superoxide generation in Bi2WO6 by less electronegative substitution for enhanced photocatalytic performance: an example of Te doping
17:45 - 18:00	S9_O12	Mr. Chaiwat Chakaja	Optimizing oxygen-plasma treatment to improve the performance of silver nanorod in Surface-Enhance Raman Scattering, SERS
18:00 - 18:15	S9_O2	Dr. Gregory Thien (Virtual)	Novel TiO2 Blend MAPbI3 Perovskite in Memory ReRAM Devices
Poster sessions			
Dinner Buffet			

Special Session: International Collaboration on Materials Technology Supported by AUN/SEED-Net, JICA

Day 2: December 2, 2021			
Room 9			
Session 12	Special session: International Collaboration on Materials Technology Supported by AUN/SEED-Net, JICA		
Session Chair	Assoc. Prof. Dr. Oratai Jongprateep-KU		
Session Co-Chair	Dr. Naray Pewnim		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker I (Prof. Dr. Amar S. Bhalla, The University of Texas at San Antonio (UTSA), USA) Title: A Lesson in the History of Ferroelectrics			
11:00 - 11:15	N/A	Mr. Murakami Yusuke (Virtual)	Opening remarks: International Collaboration on Materials Technology Supported by AUN/SEED-Net
11:15 - 11:45	S9_O16	Prof. Dr. Nagahiro Saito (Virtual)	Insight on Solution Plasma for Advanced Materials Synthesis
11:45 - 12:00	S12_O3	Mr. Amiruddi (Virtual)	Fabrication and characterization of ferroelectric polarization induced high-performance ultraviolet photodiodes
12:00 - 12:15	S12_O2	Mr. Passakorn Sonprasarn	The influence of different crystal modifiers on ultra-low embodied energy curing fiber-reinforced cement composite
12:15-12:30	S12_O10	Ms. Pudjira Manoonwong	Enhanced Antimicrobial and Mechanical Performances of Engineered Cementitious Composite by Incorporating Al-Zn Nanoparticles
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			
Session Chair	Assoc. Prof. Dr. Ratchatee Techapiesarncharoenkij		
Session Co-Chair	Asst. Prof. Dr. Gasidit Panomsuwan		
Time	**Abstract Code**	**Author**	**Title**
15:15 - 15:30	S12_O17	Prof Aye Aye Thant (Virtual)	Glucose reduced graphene oxide-coated cotton as adsorbents for crude oil removal
15:30 - 15:45	S12_O11	Miss. Khotamy Saphongxay	Utilization of latex-based residual waste as alternative filler in porous concrete blocks
15:45 - 16:00	S12_O6	Mr. Kasidit Janbooranapinij	Graphene Oxide/Silver-Modified Screen-Printed Electrode for Urea Detection
16:00 - 16:15	S12_O7	Miss Naw Blessing Oo	Development of ZnO-PVDF piezoelectric nanogenerator with integration of supercapacitor electrodes
Session Chair	Assoc. Prof. Dr. Ratchatee Techapiesarncharoenkij		
Session Co-Chair	Asst. Prof. Dr. Gasidit Panomsuwan		
Time	**Abstract Code**	**Author**	**Title**
16:45 - 17:00	S10_O5	Prof Dr. Min Maung Maung (Virtual)	Dielectric Properties and Electrochemical behavior of GO derived from Myanmar Coal Minerals
17:00 - 17:15	S12_O1	Mr Kisun Chunti	Effect of Pore Modifiers in Typical and Mechanical Properties of High-Performance Cement Mortar
17:15 - 17:30	S12_O4	Miss Pinuma Kaewruksa	Preparation of Porous Poly (butylene succinate) Film for Fruit and Vegetable Packaging
17:30 - 17:45	S12_O15	Miss Siraprapa Pitiphattharabun	SiO2/TiO2/graphene ink composite as modified electrode for glutamate detection
17:45 - 18:00	S12_O16	Mr. Nattapat Chaiammart	Activated Porous Carbon Derived from Marigold Flower Waste as Electrode Materials for Supercapacitors
18:00 - 18:15	S4_O3	Prof. Dr. Hiroharu Ajiro (Virtual)	The methacrylate copolymers including fluorine and carboxylic acid moieties and their surface properties
Poster sessions			
Dinner Buffet			

Special Session: The 100th year Discovering of Ferroelectricity Celebration (Virtual)

Day 2: December 2, 2021			
Room ZOOM Application			
Session 13 The special session on 100-year Discovering of Ferroelectricity Celebration			
Session Chair: Assoc. Prof. Dr. Anucha Watcharapasorn-CMU			
Session Co-Chair Assoc. Prof.Dr. Aurawan Rittidech-MSU			
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker I (Prof. Dr. Amar S. Bhalla, The University of Texas at San Antonio (UTSA), USA) ***Title: A Lesson in the History of Ferroelectrics***			
10:45 - 11:15	S13_O5	Prof. Dr. Ahmad Safari	Piezoelectric and Dielectric Composites
11:15 - 11:45	S13_O9	Prof. Dr. Zuo-Guang Ye	Structures and Multiferroic Properties of Rare-Earth Substituted Bismuth Ferrite
11:45 - 12:15	S13_O3	Asst. Prof. Dr. Saichon Sriphan	Recent Trends of Triboelectric Nanogenerator as Smart Wearable Electronics
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			
Session Chair: Prof.Dr. Supon Ananta-CMU			
Session Co-Chair Assoc. Prof. Dr. Anucha Watcharapasorn-CMU			
Time	**Abstract Code**	**Author**	**Title**
15:15 - 15:45	S13_O1	Prof. Dr. Shujun Zhang	The Impact of Local Structural Heterogeneity on Piezoelectrical Properties of Ferroelectrics
15:45 - 16:15	S13_O13	Prof. Dr. Gobwuit Rujijanagul	Composite Piezoelectric
16:15 - 16:45	S13_O4	Assoc. Prof. Dr. Oon Jew Lee	Ferroelectric/Multiferroic Self-Assembled Vertically Aligned Nanocomposites: Recent Advances and Future Trends
Session Chair: Prof. Dr. Gobwute Rujijanagul-CMU			
Session Co-Chair Assoc. Prof. Dr. Anurak Prasatkhetragarn-UP			
Time	**Abstract Code**	**Author**	**Title**
16:45 - 17:15	S13_O1	Prof. Dr. Roger Whatmore	100 (+1) Years of Ferroelectricity
17:15 - 17:45	S13_O10	Prof. Dr. K.C. James Raju	Ferroelectric Thin Films for Miniaturized Tunable Microwave Devices and Laser Annealing - A Means to Lower Their Crystallization Temperature
17:45 - 18:15	S13_O11	Asst. Prof. Dr. Sasipohn Prasertpalichat	Enhanced Hardening Characteristics in BNT-BT Lead Piezoelectric Ceramics Through A-Site Acceptor Doping
Poster sessions			
Dinner Buffet			

Special Session: Luminescence Glasses, Crystals and Related Functional Materials for Photonics and Scintillation Material Applications

Day 2: December 2, 2021			
Room 7	Parallel		
Session 14	Special session: Luminescence Glasses, Crystals and Related Functional Materials for Photonics and Scintillation Material Applications		
Session Chair	Assoc.Prof.Dr. Jakrapong Kaewkhao		
Session Co-Chair	Asst.Prof.Dr. Piyachat Meejitpaisan		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker I (Prof. Dr. Amar S. Bhalla, The University of Texas at San Antonio (UTSA), USA) ***Title: A Lesson in the History of Ferroelectrics***			
10:15-10:45	S14_O15	Invited Speaker: Prof. Dr. Jayasankar C K	A critical review and future prospects of Dy^{3+}-doped glasses for white light emission applications
10:45-11:00	S14_O9	Asst. Prof. Dr. Natthakridta Chanthima	Eu^{3+} IONS DOPED LITHIUM ALUMINIUM GADOLINIUM BOROPHOSPHATE GLASSES: ENERGY TRANSFER, OPTICAL AND LUMINESCENCE BEHAVIORS FOR RED EMISSION MATERIAL
11:00-11:15	S14_O7	Miss Nawarut Jarucha	RADIOLUMINESCENCE AND PHOTOLUMINESCENCE PROPERTIES OF Sm^{3+} DOPED GADOLINIUM ALUMINUM SODIUM PHOSPHATE OXYFLUORIDE SCINTILLATING GLASS
11:15 - 11:30	S14_O32	Asst. Prof. Dr. Chittra Kedkaew	1.06 μm EMISSION OF Nd^{3+}-DOPED ALUMINIUM BARIUM LITHIUM PHOSPHATE GLASSES FOR NEAR LASER MEDIUM MATERIAL
11:30 - 11:45	S14_O14	Miss Donnapus Yodkantee	Energy transfer investigations from Gd^{3+} to Eu^{3+} and photoluminescence properties in phosphate glasses for optical display devices
11:45 - 12:00	S14_O33	Mr. Warawut Sa-ardsin	Physical and Luminescence Properties of Zinc Barium Gadolinium Borate Glass Doped with Dysprosium Oxide for White Light Emission
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			
Session Chair	Dr.Eagapon Kaewnuam		
Session Co-Chair	Asst.Prof.Dr. Piyachat Meejitpaisan		
Time	**Abstract Code**	**Author**	**Title**
15:15 - 15:45	S14_O25	Assoc.Prof Pham Minh	NONLINEAR OPTICAL PROPERTIES AND LASER EMISSION OF FLUORIDE MATERIALS IN THE ULTRAVIOLET REGION
15:45 - 16:00	S14_O12	Assoc. Prof. Dr. Smit Insiripong	LUMINESCENCE AND JUDD-OFELT ANALYSIS OF GALLIUM ALUMINUIM GADOLINIUM YTTRIUM BORATE DOPED WITH Dy^{3+} SCINTILLATING GLASS
16:00 - 16:15	S14_O16	Assoc.Prof Dr. Natthapon Srisittipokakun	Characterization on physical, optical, and photoluminescence properties of Cr_2O_3 in borosilicate glasses
16:15 - 16:30	S14_O18	Asst. Prof. Dr. Keerati Kirdsiri	Development of orange laser medium materials from lithium calcium zinc borate glasses doped with Sm^{3+}
16:30 - 16:45	S14_O10	Assoc.Prof.Dr. Jakrapong Kaewkhao	EFFECT OF Gd_2O_3 IN L_2O–AlF_3–CaF_2–P_2O_5–Eu_2O_3 GLASSES FOR LASER MEDIUM AND X-RAYS DETECTION MATERIAL APPLICATIONS
Afternoon break			

Session Chair Session Co-Chair	Dr. Eagapon Kaewnuam Asst.Prof.Dr. Piyachat Meejitpaisan		
Time	**Abstract Code**	**Author**	**Title**
16:45 - 17:15	S14_O30	Assoc. Dr. Rajaramakrishna Rajanavaneethakrishna	OPTICAL PROPERTIES OF Sm3+ DOPED CaO-Al2O3-Na2O-BaO-B2O3 GLASSES FOR UNDER-SEA OPTICAL DEVICE APPLICATIONS
17:15 - 17:30	S14_O29	Asst. Prof. Dr. Yotsakit Ruangtaweep	Effect of Er_2O_3 and gold nanoparticles on luminescence behavior of borosilicate glasses for gain bandwidth on telecommunication material application
17:30 - 17:45	S14_O19	Miss Benchaphorn Damdee	SYNTHESIS PHYSICAL AND PHOTOLUMINESCENCE INVESTIGATION OF Eu^{3+} DOPED GADOLINIUM BORATE GLASSES FOR OPTICAL DISPLAY MATERIAL APPLICATION
17:45 - 18:00	S14_O23	Assoc. Prof. Dr. Jakrapong Kaewkhao	Optical, luminescence and energy transfer studies of Gd^{3+}/Dy^{3+} doped potassium gadolinium borophosphate glasses
Poster sessions			
Dinner Buffet			

Day 2: December 2, 2021			
Room 8	**Parallel**		
Session 14	**Special session: Luminescence Glasses, Crystals and Related Functional Materials for Photonics and Scintillation Material Applications**		
Session Chair	**Asst.Prof.Dr. Narun Luewarasirikul**		
Session Co-Chair	**Asst.Prof.Dr. Wuttichai Chaipruksa**		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker II (Prof. Dr. Setsuhisa Tanabe, Kyoto University, Japan) Title: Rare-earth Doped Glasses for Telecommunication and Lighting			
10:15-10:45	S14_O21	Prof.Dr. HongJoo Kim	Development of novel crystal scintillators for the lunar mission
10:45-11:00	S14_O1	Dr. Eakgapon Kaewnuam	THE STUDY AND DEVELOPMENT ON $Gd_2Y(1-x)DyxAl_2Ga_3O_{12}$ PHOSPHOR FOR X-RAY DETECTION MATERIAL
11:00-11:15	S14_O2	Mr. Amos Vincent Ntarisa	FABRICATION AND STUDY ON THE EFFECT OF VARYING GADOLINIUM COMPOUNDS ON CE^{3+}-ACTIVATED PHOSPHATE GLASSES FOR SCINTILLATION
11:15 - 11:30	S14_O3	Mr. Sudipta Saha	HIGH LIGHT YIELD LITHIUM PHOSPHATE GLASS ACTIVATED WITH CE3+ -IONS FOR RADIATION DETECTION
11:30 - 11:45	S14_O4	Mr. Winut Wongwan	SCINTILLATION AND PHOTOLUMINESCENCE INVESTIGATION OF $Gd_2MoB_2O_9$: CeF_3 PHOSPHORS
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			
Session Chair	**Assoc. Prof. Dr. Pattarawagee Yasaka**		
Session Co-Chair	**Dr. Nuanthip Wantana**		
Time	**Abstract Code**	**Author**	**Title**
15:15 - 15:45	S14_O24	Dr. Marilou Cadatal-Raduban	FAST ULTRAVIOLET SCINTILLATION FROM WIDE BAND GAP FLUORIDE CRYSTALS UNDER HIGH PRESSURE
15:45 - 16:00	S14_O6	Asst.Prof.Dr. Kittipong Siengsanoh	The Role of Bi_2O_3 on the Photon, Neutron, and Charged Particles Shielding Properties of Silicate Glass Specimens
16:00 - 16:15	S14_O8	Asst.Prof.Dr. Pruittipol Limkitjaroenporn	PHOTON, CHARGED PARTICALES, AND NEUTRON SHIELDING PROPERTIES OF NATURAL RUBBER/SnO_2 COMPOSITES
16:15 - 16:30	S14_O11	Prof. Sunghawn Kim	Characteristics of Photopolymerized Tissue Equivalent Plastic Scintillator in High Dose Rate Radiotherapy
16:30 - 16:45	S14_O13	Miss Kanok-orn Pinpongpun	ENERGY CONSTRAINT EMBEDDED ADAPTIVE WEIGHTED GERCHBERG-SAXTON ALGORITHM FOR HOLOGRAPHIC TWO-DIMENSIONAL OPTICAL TRAP CONSTRUCTION
Afternoon break			

Session Chair	Assoc. Prof. Dr. Pattarawagee Yasaka		
Session Co-Chair	Dr. Nuanthip Wantana		
Time	**Abstract Code**	**Author**	**Title**
16:45 - 17:15	S14_O27	Assistant Prof. Kohei YAMANOI	RADIATION RESISTANCE AND IMPROVED RESPONSE TIMES OF ZNO SCINTILLATOR AFTER GAMMA-RAY IRRADIATION
17:15 - 17:30	S14_O17	Mr REDDAPPA RELLA	Photoluminescence characteristics of Ln^{3+}-doped phosphors derived from sustainable resources for solid state lightning applications
17:30 - 17:45	S14_O22	Assoc. Prof. Dr. Suwimon Nualpralaksana	SOLID-STATE SYNTHESIS, CHARACTERIZATION AND LUMINESCENT PROPERTIES OF $EuBO_3$ PHOSPHORS WITH VARIOUS Gd^{3+} CONCENTRATIONS FOR X-RAY SCREEN MATERIAL
17:45 - 18:00	S14_O26	Assoc. Prof. Suchart Kothan	CRYSTAL GROWTH AND LUMINESCENCE CHARACTERISTIC OF LaCl3:Dy^{3+} SINGLE CRYSTAL FOR THE LASER APPLICATION
18:00 - 18:15	S14_O31	Asst. Prof. Dr. Tidarut Vichaidid	Thermoluminescence Dating of Freshwater fossil shell in the Archaeological sites at Cliff Deva Thoud Ta-Thoud Yai, Songkhla Province of Thailand
Poster sessions			
Dinner Buffet			

Oral Presentation Schedule
December 3, 2021

Day 3: December 3, 2021			
Room 1			
Session 1	**Electronic and Magnetic Materials and Magnets**		
Session Chair	**Dr Nuttachai Jutong**		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker II (Prof. Dr. Setsuhisa Tanabe, Kyoto University, Japan) ***Title: Rare-earth Doped Glasses for Telecommunication and Lighting***			
10:15-10:45	Invited Speaker	Prof. Dr. NAVNEET DABRA	SYNTHESIS AND MULTIFERROIC PROPERTIES OF NANOSTRUCTURED/COMPOSITE MATERIALS
10:45-11:15	Invited Speaker	Assoc. Prof. Dr. Chatchawal Wongchoosuk	Graphene-based gas sensors
11:15 - 11:30	S1_O4	Mr. Rattaphon Phoomatna	Influence of the free layer thickness on the magnetization switching of CoFeB-based magnetic tunnel junctions for STT-MRAM application
11:30 - 11:45	S1_O3	Mr. Wasan Pantasri	Parametric optimization for high performance Heat-Assisted Magnetic Recording
11:45 - 12:00	S1_O4	Dr. Zhao Qingda	Silvaco's Technology computer-aided design (TCAD) software overview: a device simulation perspective
12:00 - 12:15	S1_O8	Ms. Rungtawan Khamtawi	Role of exchange bias field of synthetic antiferromagnet in performance of magnetoresistive sensor
Lunch break			
Session Chair	**Asst.Prof.Dr. Sujitra Unruan**		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
13:00 - 13:30	Invited Speaker	Assoc Prof. Dr. Wanchai Pijitrojana	Magnetic Metamaterials and Its Applications
13:30 - 13:45	S1_O7	Dr. Prapaiwan Sunwong	DESIGN OF DIPOLE MAGNETS FOR SIAM PHOTON SOURCE II
13:45 - 14:00	S1_O11	Mr. Kantapat Tonchua	The Effects of Heating System on Alkaline Cell in Spin-Exchange Relaxation-Free Atomic Magnetometer
14:00 - 14:15	S1_O27	Dr Nuttachai Jutong	Spin selective in EuO double spin-filter tunnel junctions
14:15 - 14:30	S1_O25	Mr Joko Utomo (Virtual)	CRYSTAL STRUCTURES AND MORPHOLOGY OF Ni0.4Zn0.6-xCoxFe2O4 NANOPARTICLES: INFLUENCE OF CO DOPING
Afternoon break			

Day 3: December 3, 2021			
Room 2			
Session 2	**Piezoelectric and Dielectric Materials**		
Session Chair	**Assoc. Prof. Soodkhet Pojprapai-SUT**		
Session Co-Chair	**Dr.Phakkhananan Pakawanit-SLRI**		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker II (Prof. Dr. Setsuhisa Tanabe, Kyoto University, Japan) ***Title: Rare-earth Doped Glasses for Telecommunication and Lighting***			
10:15-10:45	Invited Speaker	Assoc. Prof.Dr Tosapol Maluangnont	INORGANIC NANOSHEETS ELECTRONICS: FROM UNILAMELLAR NANOSHEETS TO LAYERED CRYSTALS AND COMPOSITES
10:45-11:15	Invited Speaker	Dr Shuting Chen (Virtual)	Thermal-sprayed coating of lead-free piezoelectric ceramic and its application for ultrasonic sensors
11:15-11:30	S2_O9	Mr. Aykut AYKAC (Virtual)	The Investigation of the Effect of Rare Earth Doping on the Electrical Properties and Device Performance of 0.7Pb(Mg1/3Nb2/3)O3 – 0.3PbTiO3 (PMN–PT) Ceramics
11:30 - 11:45			
Lunch break			
Session Chair	**Dr.Phakkhananan Pakawanit-SLRI**		
Session Co-Chair	**Dr. Phieraya Pulphol, KMITL**		
Time	**Abstract Code**	**Author**	**Title**
13:00 - 13:30	Invited Speaker	Prof. Dr.Sedat Alkoy (Virtual)	Electrical Properties and Thin-Shell Transducer Applications of Pb(Ni1/3Nb2/3)O3–Pb(Zr,Ti)O3 Solid Solutions
13:30 - 13:45	Invited Speaker	Prof. Dr. Ebru MENSUR (virtual)	What are the Challenges and What Dominates the Electrocaloric Performance in Lead-Based and Lead-Free Ferroelectrics?
13:45 - 14:00	S2_O19	Asst. Prof. Ayse Berksoy-Yavuz (Virtual)	DETERMINATION OF ELECTROMECHANICAL PROPERTIES OF PSn-PMN-PT TERNARY SYSTEM FOR UTILIZATION IN HIGH-POWERED APPLICATIONS
Afternoon break			

Day 3: December 3, 2021			
Room: 3			
Session: 3	Energy and Energy Storage Materials		
Session Chair	Dr. Noppadon Nuntawong		
Session Co-Chair	Asst.Prof.Dr.Sasipohn Prasertpalichat		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker II (Prof. Dr. Setsuhisa Tanabe, Kyoto University, Japan) ***Title: Rare-earth Doped Glasses for Telecommunication and Lighting***			
10:15-10:45	Keynote	Prof. Dr. John Wang	MANIPULATING ELECTROCATALYSTS FOR ENERGY AND ENVIRONMENT: FROM SINGLE ATOMS, MARRIED ATOMS TO ATOMS IN GROUPS
10:45-11:15	Invited Speaker	Dr. Pawin Iamprasertkun	GRAPHENE TO BE OR NOT TO BE ENERGY STORAGE MATERIALS
11:15-11:30	S3_O10	Dr. sompong bangyeekhan	The development of the Electric Covert Set from geothermal energy (Hot springs) by thermoelectric.
11:30-11:45	S3_O11	Miss Naraphorn Tunghathaithip	Nanostructural Characterization of Silicon Nanowires Hybrid Solar Cell, Fabricated by Metal-Catalyzed Electroless Etching Method
11:45 - 12:00			
Lunch break			
Session Chair	**Asst. Prof. Dr. Pongsakorn Kanjanaboos**		
Session Co-Chair	**Asst.Prof.Dr.Sasipohn Prasertpalichat**		
Time	**Abstract Code**	**Author**	**Title**
13:00 - 13:30	Invited Speaker	Prof. Dr. Wee-Jun Ong	2D-Based Photo/Electro-catalysis: A Green Step Toward Renewable Energy Applications
13:30 - 14:00	Invited Speaker	Prof.Dr. Tosawat Seetawan	Thermoelectric Alternative Energy Harvesting Sources
14:00 - 14:15	S3_O12	Miss. sireetone Yawirach	HIGH-TEMPERATURE ELECTRICAL AND THERMAL TRANSPORT PROPERTIES OF Y(Ba1-xLax)2Cu3O7-δ CERAMICS
14:15 - 14:30	S3_O13	Benediktus Ma\'dika	The Role of Activated Carbon Addition on Electrochemical Performance of Li4Ti5O12/Sn Composite as Lithium-ion Battery Anode
Afternoon break			
Session Chair	**Asst.Prof.Dr.Saichon Sriphan**		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
14:45 - 15:15	Invited Speaker	Dr. Rongrong Cheacharoen	Critical role of functional groups in a polymeric binder to improve stability of aqueous Zn/MnO2 batteries
15:15 - 15:30	S3_O14	Mr. Thanaphon Kansaard	Structural, optical and photo-induced catalytic properties of derived-Leucoxene / BiVO4 composite prepared by sonochemical process
15:30 - 15:45	S3_O17	Mr Wichet Thipprasert	Energy Absorption of Metal Oxide Surge Arresters in 22 kV Distribution System
15:45 - 16:00	S3_O18	Dr. Darunee Aussawasathien	ACTIVATED CARBON FIBER MATS FROM PALM-KERNEL-SHELL BASED LIGNIN/POLYACRYLONITRILE FIBERS AS FREE-STANDING ELECTRODES FOR SUPERCAPACITOR
16:00 - 16:15	n/a	n/a	n/a
Poster sessions			
Banquet			

Day 3: December 3, 2021			
Room 4			
Session 4	**Bioplastics, Biomaterials, Polymer Composite and Environmental Materials**		
Session Chair	**Assoc. Prof. Dr.Supree Pinitsoontorn**		
Session Co-Chair	**Dr. Thitirat Charoonsuk**		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker II (Prof. Dr. Setsuhisa Tanabe, Kyoto University, Japan) ***Title: Rare-earth Doped Glasses for Telecommunication and Lighting***			
10:15-10:45	S4_O33	Invited Speaker: Prof. Dr.Nantanit Wanichacheva	Toward Sustainable Development Goals by Designing and Development of Hazardous Heavy Metal Sensors
10:45-11:00	S4_O11	Ms.Sirintra Lokakaew	Preparation and Characterization of Cellulose and Carboxymethylcellulose from Lemon Peel
11:00-11:15	S4_O14	Ms.Mathurot Malimat	Sound Absorbing Panels from Poly(lactic acid) Non-woven Fabric and Natural Fibers
11:15 - 11:30	S4_O15	Nawaporn Permsombut	Effect of Wet Spinning Parameters on Bamboo Cellulose Nanofiber Filament Preparation
11:30 - 11:45	S4_O18	Mr.Pitakpong Kamrit	Barrier and Seal properties of Reactive Blending of Poly(butylene succinate) Based Blends
11:45 - 12:00	S4_O38	Dr.Sarayut Pantian	Luminescence and Spectroscopic Characteristics of Zinc Barium Boro-tellurite Glass Doped with Tm_2O_3 for Optical Applications
12:00 - 12:15	S4_O43	Miss. Wanwanut Chueasupcharoen	Synthesis and Characterization of Star-branched Poly(ε-caprolactone) for Use as a Future Drug Carrier in Chemotherapy
Lunch break			
Session Chair	**Prof. Dr.Nantanit Wanichacheva**		
Session Co-Chair	**Asst. Prof. Dr.Sukasem Watcharamaisakul**		
Time	**Abstract Code**	**Author**	**Title**
13:00 - 13:30	S4_O39	Invied Speaker:Assoc. Prof. Dr.Pakorn Opaprakasit	Responsive Polymeric Hybrid Particles for Use in Environmental and Biomedical Applications
13:30 - 13:45	S4_O20	Mr.Sippawich Thummada	Thick All-Cellulose Composite Laminates from Native and Regenerated Cellulose Textiles
13:45 - 14:00	S4_O21	Mr.Anuphong Suthatho	Sound Absorption Performance of All-Cellulose Composites from Cotton Textiles
14:00 - 14:15	S4_O22	Miss Naruebhorn Piyataksanon	Bio-based Polyurethane Derived from Carbon Dioxide and Epoxidized Soybean Oil
14:15 - 14:30	S4_O23	Mr.Korawit Kaoudom	Stretchability and Deformation Behavior of Polybutylene Adipate-co-terephthalate Blend Films
Afternoon break			
Session Chair	**Assoc. Prof. Dr.Pakorn Opaprakasit**		
Session Co-Chair	**Dr. Thitirat Charoonsuk**		
Time	**Abstract Code**	**Author**	**Title**
14:45 - 15:15	S4_O40	Invited Speaker: Asst. Prof. Dr.Sukasem Watcharamaisakul	Hydrogen Peroxide Vapor Generator by Semiconductor Photocatalysts for Disinfecting of The COVID-19 in The Air and on Surfaces
15:15 - 15:30	S4_O24	Mr.Pasawat jongpanya-ngam	Effect of Sulfonate Derivative as Nucleating Agents on Crystallization Behavior of Poly(lactic acid)
15:30 - 15:45	S4_O28	Mr.Pornsit Chaiya	In Vitro Anti-Inflammatory Activity Using Thermally Inhibiting Protein Denaturation of Egg Albumin and Antimicrobial Activities of Some Organic Solvents
15:45 - 16:00	S4_O29	Mr.Annop Rupdee	Electrical Performance of Composite Insulator under IEC/TR 62730 Standard Testing for 22 kV Distribution System
16:00 - 16:15	S4_O35	Dr.Ekarat Meechoowas	Development of Bioactive Glass Nanoparticles for Medical Applications
16:15 - 16:30	S4_O37	Ms.Sarocha Chuakhao	Properties of Ternary Blends of Compostable Pla/Pbat/Pbs
Poster sessions			
Banquet			

Day 3: December 3, 2021			
Room 6			
Session 5: Computational Materials, Physics and Chemistry, Artificial Intelligence, and Modeling			
Session Chair	Asst. Prof. Dr. Natthaphon Raengthon		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker II (Prof. Dr. Setsuhisa Tanabe, Kyoto University, Japan) ***Title: Rare-earth Doped Glasses for Telecommunication and Lighting***			
10:15 - 10:45	S5_O8	Dr. Han Seul Kim (Virtual)	Theoretical Studies on “On/Off Switches” Enabled by Two-Dimensional Materials for Electronic/Energy Device Applications
10:45 - 11:15	S5_O5	Assoc. Prof. Dr. Robin Chang Yee Hui (Virtual)	Stabilizing cubic XPbI3 (X = MA, FA) perovskite by monolayer Ag4Se2 deposition
Lunch break			

Day 3: December 3, 2021			
Room 6 **Session 6: Ceramics Engineering, Science and Glass Materials and Technology**			
Session Chair	**Assoc. Prof.Dr.Sirithan Jiemsirilers**		
Session Co-Chair	**Dr.Chatr Panithipongwut Kowalski**		
Time	**Abstract Code**	**Author**	**Title**
13:00 - 13:30	S1_O5	Keynote: Assoc. Prof. Dr. PRASIT THONGBAI	GIANT DIELECTRIC PROPERTIES OF CO-DOPED TiO2/LnTiNbO6 CERAMIC COMPOSITES
13:30 - 14:00	S6_O14	Invited Speaker:Assoc. Prof. Dr. Satoshi Tanaka (Virtual)	VISUALIZATION OF COARSE PORE EVOLUTION DURING SINTERING IN DRY-PRESSED ALUMINA CERAMICS
14:00 - 14:15	S6_O10	Dr. Chumphol Busabok	SIMPLE METHOD TO SYNTHESIZE g-C3N4 DOPED Sn TO REDUCE BAND GAP ENERGY (Eg)
14:15 - 14:30	S6_O7	Asst.Prof.Dr. Thitipong Kruaehong	Comparison of Some Properties of Y123 and Gd123 Superconducting Material
Afternoon break			
Session Chair	**Asst.Prof.Dr. Narun Luewarasirikul**		
Session Co-Chair	**Asst. Prof. Dr. Arpapong Changjan**		
Time	**Abstract Code**	**Author**	**Title**
14:45 - 15:15	S6_O15	Invited Speaker: Assoc. Prof. Dr. Kamonpan Pengpat	Thai Ancient Mirrors and Their Imitative Products: Investigation, Characterization, and Reproduction
15:15 - 15:45	S6_O16	Invited Speaker: Assoc.Prof.Dr. Patarawagee Yasaka	LUMINESCENCE, SPECTROSCOPIC PROPERTIES AND REDDISH-ORANGE EMISSION FROM Eu3+ ION DOPED TELLURITE AND FLUOROTELLURITE GLASSES: A COMPARATIVE STUDY
15:45 - 16:00	S6_O12	Dr. Nophawan Dechboon	Influence of Nanosilica from Rice Husk on Flowability and Physical Properties of Celadon Glazes
16:00 - 16:15	S6_O8	Asst.Prof.Dr. Thitipong Kruaehong	Effect of precursor of refinement Y211 on the Superconductivity and Structural of Y257 Superconductors
16:15-16:30	S6_O6	Miss Jitlada.kumpa	Recycling of Exhausted Dust from Regenerator of Glass Furnace in Glass Batch Melting
Poster sessions			
Banquet			

Day 3: December 3, 2021			
Room 2			
Session 7	**Metals, Alloys, and Metallurgy Technology and Applications**		
Session Chair	**Asst. Prof. Dr. Waraporn Piyawit**		
Session Co-Chair	**Asst. Prof. Dr. Narit Triamnak**		
Time	**Abstract Code**	**Author**	**Title**
14:45 - 15:15	Keynote	Prof. Dr. Gobboon Lothongkum	Effect of thiosulfate in acidified artificial seawater on corrosion behaviors of 25Cr-3Ni-7Mn-0.66N duplex stainless steel
15:15 - 15:45	Invited speaker	Dr. Anchalee Manonukul (Virtual)	Extruded and sintered based metal 3D printing – effects of printing direction
15:45 - 16:00	S7_O2	Asst. Prof. Dr. Kittichai Sojiphan	Effects of Heat Accumulation on Microstructure and Mechanical Properties in Wire Arc Additive Manufacturing of Aluminum Alloy 4043
16:00 - 16:15	S7_O3	Mr. Satienrapong Ngamsomrit	Towards High Magnetic Performance of LTP-MnBi Prepared by Sintering in Vacuum: Particle Size and Oxides Reductions
Poster sessions			
Banquet			

Day 3: December 3, 2021			
Room 7			
Session 8	**Radiation Physics and Chemistry, Instrumentation and Materials Characterization**		
Session Chair	**Dr. Pinit Kidkhunthod, SLRI**		
Session Co-Chair	**Dr. Narong Chanlek, SLRI**		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker II (Prof. Dr. Setsuhisa Tanabe, Kyoto University, Japan) ***Title: Rare-earth Doped Glasses for Telecommunication and Lighting***			
10:15-10:45	S8_O12	Assoc. Prof. Dr. Prayoon Songsiriritthigul	TWENTY-FIVE YEARS OF SYNCHROTRON RADIATION ACTIVITIES IN THAILAND
10:45-11:00	S8_O3	Mr. Ekachai Chongsereecharoen	LOCAL STRUCTURE AND CHEMICAL COMPOSITION OF HAFNIUM OXIDE THIN FILMS FABRICATED BY RF MAGNETRON SPUTTERING AT DIFFERENT POWER
11:00-11:15	S8_O4	Dr. Krittiya Sreebunpeng	Fast response (Lu,Y)3Al2Ga3O12:Pr,Mg multicomponent garnet crystal scintillators
11:15 - 11:30	S8_O5	Dr. Warut Chewpraditkul	Temperature dependence of scintillation yield of Mg2+-codoped Y0.6Gd2.4Al2Ga3O12:Ce single crystal grown by Czochralski method
11:30 - 11:45	S8_O7	Dr. Chanan Euaruksakul	Surface chemistry and electronic structure of few-layer MoS2 and WSe2 studied by synchrotron-based photoemission electron microscopy (PEEM)
Lunch break			
Session Chair	**Asst. Prof. Dr. Wuttichai Chaiphaksa, RPRU**		
Session Co-Chair	**Dr. Narong Chanlek, SLRI**		
Time	**Abstract Code**	**Author**	**Title**
13:00 - 13:30	S8_O6	Asst. Prof. Dr. Krisanat Chuamsaamarkkee	Development of Automated System for Airborne Radioiodine Monitoring in Nuclear Medicine
13:30 - 14:00	S8_O16	Dr. Kitiphat Sinthiptharakoon	Nano Site–Specific Surface Analysis Using AFM and Raman for Charge–Transfer Nanostructure Development
14:00 - 14:15	S8_O8	Miss Wasunun Sassuvun	Study transmitted and reflected Raman spectroscopy using dual wavelength excitation
14:15 - 14:30	S8_O9	Assist. Prof Ongsa Sakthong	Scintillation yield and timing characteristics of Y0.8Gd2.2Al2Ga3O12:Ce,Mg and Lu0.8Gd2.2Al2Ga3O12:Ce,Mg garnet crystals: A comparative study
Afternoon break			
Session Chair	**Dr. Pinit Kidkhunthod SLRI**		
Session Co-Chair	**Asst. Prof. Dr. Wuttichai Chaiphaksa, RPRU**		
Time	**Abstract Code**	**Author**	**Title**
14:45 - 15:15	S8_O18	Dr Narong Chanlek	X-RAY PHOTOELECTRON SPECTROSCOPY AND ITS APPLICATION AT THE SYNCHROTRON LIGHT RESEARCH INSTITUTE (SLRI), THAILAND
15:15 - 15:45	S8_O19	Dr.Nuanthip Wantana	OPTICAL, LUMINESCENCE AND SCINTILLATION PROPERTIES OF LaCl3:Ln CRYSTAL
15:45 - 16:00	S8_O13	Mr. Tirapat Wechprasit	Structural and photocatalytic properties and X-ray absorption spectroscopic study of BiVO4 nanoparticles incorporated with Fe synthesized by sonochemical method
16:00 - 16:15	S8_O14	Miss Manlika Sriondee	Dynamic changes of electrical resistance in bi-crystal SrTiO3 induced by UV irradiation
Poster sessions			
Banquet			

Day 3: December 3, 2021			
Room 5			
Session 9,10	**Nanomaterials, Thick and Thin Films and Surface Sciences / Materials Processing, Tribology and Coating Technology**		
Session Chair	**Asst.Prof.Dr. Phitsanu Poolcharuansin (MSU)**		
Session Co-Chair	**Prof Dr. Nisanart Traiphol (CU)**		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker II (Prof. Dr. Setsuhisa Tanabe, Kyoto University, Japan) ***Title: Rare-earth Doped Glasses for Telecommunication and Lighting***			
10:15-10:45	S9_O20	Invited speaker: Assoc.Prof.Dr. Chaikarn Liewhiran	COMPLEX METAL OXIDE-BASED GAS SENSORS: A STUDY UNDER FLAME SPRAY PYROLYSIS AND GAS-SENSING FACTORS
10:45-11:15	S9_O25	Invited speaker: Prof. BALAJI RAVURI (Virtual)	INVESTIGATIONS ON APPLICABILITY OF Na3+x[(Zr/Cr)x(Sc/Ti)2-x(PO4)3 GLASS-CERAMIC ELECTROLYTE MATERIALS FOR Na-ION BATTERIES
11:15-11:30	S9_O13	Miss Jutarat Kaewthong	Optical investigation of charge localization on 2D materials using liquid crystals platform
11:30-11:45	S9_O17	Dr. Kata Jaruwongrungsee	Femtosecond Laser Microfabricated LTCC-based Low Power Gas Sensor
11:45-12:00	S9_O27	Miss Mameaseng Siriwalai	Selectivity towards NO2 gas by flame-spray-made la2o3-functionalized WO3 sensing films
Lunch break			
Session Chair	**Assoc. Prof. Dr. Anurak Prasatkhetragarn**		
Session Co-Chair	**Asst. Prof. Dr. Sutatch Ratanaphan**		
Time	**Abstract Code**	**Author**	**Title**
13:00 - 13:30	S10_O4	Keynote: Prof. Dr. Dheerawan Boonyawan	Low-Temperature Plasma Processing in Advanced Materials: From Soft Tissue to Gemstone
13:30- 14:00	S9_O4	Invited speaker: Assist. Prof. Dr Sukkaneste Tungasmita	in-situ thermal stability investigations on crystallinity and microstructure of IrMn antiferromagnetic thin film for spin-valve-based devices
14:00-14:15	S10_O1	Miss Piyathida Nitnara	Development of Polymer Binder for Properties Enhancement of Soil Cement
14:15 - 14:30	S9_O23	Ms. Thita Sonklin	GLACING ANGLE DEPOSITION OF ZnO THIN FILM USING RF MAGNETRON SPUTTERING METHOD
14:30 - 14:45	S9_O24	Mr. Krongtham Thamkrong-art	High-bias I-V characteristics of free-standing reduced graphene oxide
Afternoon break			
Session Chair	**Asst. Prof. Dr.Sukkaneste Tungasmita**		
Session Co-Chair	**Asst. Prof. Dr. Dujreutai Pongkao Kashima**		
Time	**Abstract Code**	**Author**	**Title**
14:45 - 15:15	S9_18	Invited speaker: Prof. Dr.Nisanart Traiphol	Polydiacetylene/metal oxide nanocomposites for smart paints and colorimetric sensors
15:15-15:45	S10_O6	Invited speaker: Assistant Professor Sutatch Ratanaphan	How to make boring copper special (or even more exciting)?
15:45-16:00	S10_O2	Mr. Napaphol Puyathorn	Phase Separation and Intermolecular Binding Energy of Ibuprofen in Some Organic Solvents
16:00-16:15	S10_O7	Mr. Peerapong Yamchumporn	A studies in thermoelectric effect of Eu2O3 substitution on Al2O3 in CuAl(x-1)Eu(x)O2
16:15-16:30	S10_O8	Ms. Chutimon Makee	Wear of multinite coated high speed steel drills compared with uncoated high speed steel drills.
Poster sessions			
Banquet			

Special Session: International Collaboration on Materials Technology Supported by AUN/SEED-Net, JICA

Day 3: December 3, 2021			
Room 9			
Session 12	Special session: International Collaboration on Materials Technology Supported by AUN/SEED-Net, JICA		
Session Chair	Assoc. Prof. Dr. Oratai Jongprateep-KU		
Session Co-Chair	Dr. Naray Pewnim		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker II (Prof.Dr. Setsuhisa Tanabe, Kyoto University, Japan)			
10:45-11:00	S12_O8	Miss Aye Myint Myat Kyaw	Effect of hydrothermal reaction time on the photoelectrochemical performance of nanostructured WO3 photoanode
11:00-11:15	S12_O12	Miss Nicha Choophun	Solution Plasma Synthesis of Silver Nanoparticles Supported on Rice Husk Silica as a Catalyst for Reduction 4-Nitrophenol
11:15-11:30	S12_O13	Miss Nu Myat Thazin	Influence of Pretreatment and Pre-Carbonization Conditions on the Porosity Development of Activated Carbon Fibers from Kapok for Supercapacitor Electrode Applications
11:30 - 11:45	S12_O14	Miss Myo Myo Thu	Innovative Solution Plasma Process for the Synthesis of Porous Carbons from Benzene for Use as Supercapacitor Electrode Materials
Lunch break			

Special Session: The 100th year Discovering of Ferroelectricity Celebration (Virtual)

Day 3: December 3, 2021			
Room ZOOM Application			
Session 13 The special session on 100-year Discovering of Ferroelectricity Celebration			
Session Chair: Assoc. Prof.Dr. Aurawan Rittidech-MSU			
Session Co-Chair Assist. Prof. Dr. Saichon Sriphan-KMUTT			
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker II (Prof. Dr. Setsuhisa Tanabe, Kyoto University, Japan) Title: Rare-earth Doped Glasses for Telecommunication and Lighting			
10:45 - 11:15	S4_O32	Prof. Dr. Ramamoorthy Ramesh	A New Era in Ferroelectrics
11:15 - 11:45	S13_O14	Assoc. Prof. Dr. Anurak Prasatkhetragarn	A Review of PT- and PZT-Based Binary Ferroelectric Ceramics for Energy Storage Applications by Solid-State Reaction Technique
11:45 - 12:15	S13_O2	Assoc. Prof. Dr. Hiroki Matsuo	Activation of Visible Light Response in Ferroelectric Photovoltaic Effects via Gap-State Engineering
Lunch break			
Session Chair: Assoc. Prof.Dr. Aurawan Rittidech-MSU			
Session Co-Chair Dr. Natthapong Wongdamnern-RMUTSB			
Time	**Abstract Code**	**Author**	**Title**
13:00 - 13:30	S13_O8	Prof. Dr. Lane W. Martin	Understanding, Controlling, and Using Relaxor Ferreoelectric Thin Films
13:30 - 14:00	S13_O6	Prof. Dr. Supon Ananta	Microstructural Design of Perovskite Ferroelectric Ceramics
Afternoon break			

Special Session: Young Professional and Students Division

Day 3: December 3, 2021

Room 9
Special Session: Young Professional and Students Division
Session Chair **Asst. Prof. Dr. Narit Triamnak**
Session Co-Chair

Time	Abstract Code	Author	Title
13:00 - 13:15	S15_O2	Dr. Montira Sriyai (CMU)	Development of a Medical-grade Poly(L-lactide-co-ε-caprolactone) Copolymer for Use as an Absorbable Monofilament Surgical Suture
13:15 - 13:30	S15_O3	Piyanut Muangtong (RMUTR)	Structural observation of the nanoporous CoCrFe alloys formed by selective leaching in sodium chloride solution
13:30 - 13:45	S15_O5	Natdanai Suktep (KMITL)	SILK FIBROIN FILM FABRICATION FOR TRANSPARENT TRIBOELECTRIC NANOGENERATOR
13:45 - 14:00	S15_O4	Peerapat Soysom (SU)	Synthesis of Y2Sn2O7-based pyrochlore yellow pigments by adding vanadium oxide
14:00 - 14:15	S14_O10	Chayani Sarumaha	EFFECT OF Gd2O3 IN Li2O–AlF3–CaF2–P2O5–Eu2O3 GLASSES FOR LASER MEDIUM AND X-RAYS DETECTION MATERIAL APPLICATIONS
14:15 - 14:30	S14_O8	Supakit Yonphan	PHOTON, CHARGED PARTICALES, AND NEUTRON SHIELDING PROPERTIES OF NATURAL RUBBER/SnO2 COMPOSITES
Afternoon break			

Session Chair **Asst. Prof. Dr. Narit Triamnak**
Session Co-Chair

Time	Abstract Code	Author	Title
14:45 - 15:00	S15_O1	Dr. Natthanon Phonchai (SU)	New approach for tuning the thermal and chemical sensitivity of polydiacetylene/zinc(II) ion/zinc oxide nanocomposite : The effect of ZnO nanoparticles content
15:00 - 15:15	S15_O6	Sonthaya Pongthanee (RMUTR)	Sound Isolation of Sustainable Sound Absorber material prepared by Natural rubber Latex and Pineapple Leaf Fiber
15:15 - 15:30	S4_P17	Parichat Chaunket (SLRI)	FABRICATION AND CHARACTERISATION OF MAGNETIC ZnO/TiO2/GRAPHENE OXIDE FOR ORGANIC DYES REMOVAL
15:30 - 15:45	S14_O9	Nuchjaree Kiwsakunkran	Eu3+ IONS DOPED LITHIUM ALUMINIUM GADOLINIUM BOROPHOSPHATE GLASSES: ENERGY TRANSFER, OPTICAL AND LUMINESCENCE BEHAVIORS FOR RED EMISSION MATERIAL
15:45 - 16:00	S15_O7	Dr.Thanun Chunjaemsri (Seagate)	Synchrotron-based investigations the local structure of Zn-doped Diamond-like carbon films
16:00-16:15	S15_O8	Nonglak Manmuang (UP)	Investigation luminescence properties and energy transfer of phosphate glass doped with Gd3+ and Sm3+ for solid-state lighting
Poster sessions			
Banquet			

Oral Presentation Schedule

December 4, 2021

Day 4: December 4, 2021			
Room 5			
Session 6: Ceramics Engineering, Science and Glass Materials and Technology			
Session Chair	**Asst. Prof. Dr. Natthaphon Raengthon**		
Session Co-Chair	**Dr. Nithiwach Nawaukkaratharnant**		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker III Dr Chris Rea, Recording Heads Operations Group, Minneapolis, Minnesota, USA. Seagate Technology, USA Title: "Heat Assisted Magnetic Recording (HAMR)"			
10:15-10:30	S6_O4	Dr. Atirat Maksuwan	Soil Moisture Prediction via Multiple Linear Regression Model for Stainless Steel Tubes Sensor
10:30-10:45	S6_O5	Asst. Prof. Dr. Arpapong Changjan	THE THIRD CRITICAL FIELD (HC3) OF SINGLE-CRYSTALLINE K0.73Fe1.68Se2 SUPERCONDUCTOR BY GINZBURG-LANDAU APPROACH
10:45-11:00	S6_O9	Asst. Prof. Dr. Piyanan Boonphayak	Synthesis and characterization of strontium substituted hydroxyapatite
11:00-11:15	S6_O3	Miss Nantawadee Udomsri	Effect of clay addition to Al2O3-agar mixture on pore size and distribution of Al2O3 membrane tube fabricated by agar gelcasting
11:15 - 11:30	S6_O13	Mr Hussanai Luangthanarak	Effect of nitrogen ions on (Fe, Cr) La2Ti2O7 for photocatalytic efficiency
11:30 - 11:45	S6_O17	Mr. Phongnared Boontueng	Proton and X-ray induced luminescence of Ce3+ doped barium-gadolinium aluminum-fluoroborate glasses for medical applications
Lunch break			

Day 4: December 4, 2021			
Room 3			
Session 7	Metals, Alloys, and Metallurgy Technology and Applications		
Session Chair	Asst. Prof. Dr. Kittichai Sojiphan		
Session Co-Chair	Asst. Prof. Dr. Waraporn Piyawit		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker III Dr Chris Rea, Recording Heads Operations Group, Minneapolis, Minnesota, USA. Seagate Technology, USA Title: "Heat Assisted Magnetic Recording (HAMR)"			
10:15-10:45	Invited Speaker	Asst.Prof.Dr. Isaratat Phung-On (Virtual)	Utilizing of Synchrotron Light on Cr-Mo Steel Dissimilar Weldment Studies
10:45-11:00	S7_O9	Miss Puttamawan Juntree	Systematic Study of Magnetizing Field and Influnce of Measuring Temperature in VSM Measurements of LTP-MnBi
11:00-11:15	S7_O10	Mr. Picha Panmongkol	Study of Imitative Micro pit volume evaluation
11:15 - 11:30	S7_O14	Mrs. Thanyaporn Yotkaew	Formations of M3C and M23C6 carbides in sintered high - carbon Fe-Mo base alloys
11:30 - 11:45	S7_O15	Miss Arisara Wanalerkngam	Microstructural changes in sintered high-carbon Fe-Mo-Mn-(Si)-C alloys due to cooling rate and carbon source
Lunch break			
Session Chair	**Asst. Prof. Dr. Narit Triamnak**		
Session Co-Chair	**Asst. Prof. Dr. Kittichai Sojiphan**		
Time	**Abstract Code**	**Author**	**Title**
13:00 - 13:15	S7_O7	Jongrak Borsup	Formation of low-temperature phase MnBi prepared by sintering
13:15 - 13:30	S7_O5	Mr. Yudhistira Adityawardhana Yudhis (Virtual)	Characteristic of Al 7075 Reinforced Nano SiC Composites as Armour Material Candidate with Squeeze Casting Fabrication and Open Die Cold Forging
13:30 - 13:45	S7_O4	Assoc. Prof. Dr. Trinet Yingsamphancharoen	Corrosion Behaviour depends on Differences Welding Current of 304 Stainless Steel Pipe by GTAW process under Sugarcane Aqueous Solution
13:45 - 14:00	S7_O8	Dr. Tanachat Eknapakul	Development of a Simple Vibrating Sample Magnetometer
Closing ceremony & awards			

Day 4: December 4, 2021			
Room 7			
Session 8	Radiation Physics and Chemistry, Instrumentation and Materials Characterization		
Session Chair	Asst. Prof. Dr. Wuttichai Chaiphaksa, RPRU		
Session Co-Chair	Dr. Pinit Kidkhunthod SLRI		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker III Dr Chris Rea, Recording Heads Operations Group, Minneapolis, Minnesota, USA. Seagate Technology, USA Title: "Heat Assisted Magnetic Recording (HAMR)"			
10:45 - 11:00	S8_O15	Mr. Anan Junsukhon	The clarification of NiO doped with TiO2 synthesized by sonochemical method for the enhancement of electrochemical degradation
11:00 - 11:15	S8_O10	Professor Min Sang RYU (Virtual)	Design of the compact TPC for a high-precision 3D beam diagnostic system
11:15 - 11:30	S8_O11	Mr. Faizan Anjum (Virtual)	Metal Photocathode Fabrication and Photocurrent Measurement Techniques
11:30 - 11:45			
Lunch break			

Day 4: December 4, 2021			
Room 2			
Session 11	Engineering Technology for Industrial Applications.		
Session Chair	Dr. Noppadon Nuntawong (NECTEC)		
Session Co-Chair	Assoc. Prof. Dr. Viyada Harnchana (KKU)		
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker III Dr Chris Rea, Recording Heads Operations Group, Minneapolis, Minnesota, USA. Seagate Technology, USA Title: "Heat Assisted Magnetic Recording (HAMR)"			
10:15-10:45	S11_O5	Keynote: Prof. Dr. Poramate Manoonpong	Nature-Inspired Robot Intelligence: From Nature to Science and Advanced Robotics Engineering Technology
10:45-11:00	S11_O2	Miss juthamat nithipaiboon	Development of Hydrophobic Fiber-Reinforced Cement Composite by Introducing Hybrid-Aluminum Admixture
11:00-11:15	S11_O4	Mr Natthaphat Parsompech	Compressive strength and pulse velocity test of Calcined clay- Limestone cement mortars
11:15 - 11:30	S11_O6	Miss Narawadee Sawamool	Optimal Pressure in Bypass Graft Prevent Failure Bypass Graft in Carotid Artery to Middle Cerebral Artery Bypass Using
11:30-11:45	S11_O7	Miss. Benjapon Tubpeng	lidar for measuring growth of plant
11:45-12:00	S11_O8	Dr.Nat Thuchayapong	The study of substitute materials in evaporative cooling system
Lunch break			
THAI CULTURAL PERFORMANCES at NONGNOOCH THEATER (NongnoochPattaya Garden I)			
Afternoon break			

Day 4: December 4, 2021			
Room ZOOM Application			
Virtual Poster session			
Session Chair	**Asst. Prof. Dr. Narit Triamnak**		
Session Co-Chair			
Time	**Abstract Code**	**Author**	**Title**
Plenary speaker III Dr Chris Rea, Recording Heads Operations Group, Minneapolis, Minnesota, USA. Seagate Technology, USA Title: "Heat Assisted Magnetic Recording (HAMR)"			
10:15-10:25	S11_P5	Ms. Thitirat Monprapakamon	MODELLING OF A BENZOXAZINONE PROCESS BASED ON A PILOT SCALE WITH SCALE-DOWN APPROACH
10:25-10:35	S11_P6	Miss. Naruporn Savetvivat	HEAT TRANSFER MODELING OF DEFERASIROX PURIFICATION IN A BATCH PROCESS
10:35-10:45	S14_P3	Dr. Pabitra Aryal	Nanostructures Doping Inside Glass Substrates Utilizing Metal-Ion Beam Implantation Technique
10:45-10:55	S5_P2	Assoc. Prof. Dr. Siew Choo Lim	Numerical Simulations of Nonlinear and Chaotic Responses in Bulk Antiferroelectrics Using Ammonium Dihydrogen Phosphate's Parameters
10:55-12:05	S8_P7	Dr. Hyojeong Choi	Cd-vapor thermal annealing of CdZnTe for room-temperature radiation semiconductor detectors
Lunch break			

ICAPMA - JMAG 2021

Poster Presentation Program

No	Abstract Code	Title	Presenter
1	S1_P1	Influence of Ge dopant on magnetic and dielectric response of $CuBO_2$ delafossite oxides	Teerasak Kamwanna
2	S1_P2	Carbon dioxide gas sensor based on Pb nanoparticles/graphene quantum dots nanocomposite	Nuttavut Kamkeaw
3	S1_P3	Development of zinc oxide nanoparticles based electrochemical sensor for glyphosate detection	Pranlekha Traiwatcharanon
4	S1_P4	Synthesis of copper oxide nanoparticles and their sensing application in soil	Onsuda Arayawut
5	S1_P5	Vibration isolation scheme based on electromagnetic spring	Tanatip Mayoon
6	S1_P6	Unconventional Rashba spin-orbit coupling on a charge and spin of a ferromagnetic/ferromagnetic insulator/ferromagnetic Rashba metal junction	Aek Jantayod
7	S1_P7	Roentgen radiation response in p-n semiconductor device	Chonmapat Torasa
8	S2_P1	Effects of $LiNbO_3$ addition on sintering behavior and electrical properties of $Ba_{0.85}Ca_{0.15}Zr_{0.10}Ti_{0.90}O_3$ ceramics	Anocha Kongtrakannon
9	S2_P2	Effect of $Ca_3Co_4O_9$ on physical and electrical properties of lead-free $Bi_{0.5}(Na_{0.80}K_{0.20})_{0.5}TiO_{3-0.005}LiNbO_3$ ceramics	Pimpilai Wannasut
10	S2_P3	Origin of piezoelectricity in bacterial cellulose for the development of eco-friendly responsive film	Siwat Penrasamee
11	S2_P4	Colossal dielectric constants in $Sr(Fe_{0.5}Nb_{0.5})1-xMn_xO_3$ prepared by a modified solid-state reaction technique	Kamonporn Saenkam
12	S2_P5	Phase transition, thermal expansion, and electrical properties of BNLT-BT ceramics near the morphotropic phase boundary	Nuttapon Pisitpipathsin
13	S2_P6	Studies on structural, dielectrics, mechanical and magnetics properties of two stage sintered $(1-x)Mg_{0.3}Zn_{0.7}Fe_2O_{3-x}Ba_{0.7}Sr_{0.3}TiO_3$ composite	Aurawan Rittidech
14	S2_P7	Influence of titanium dioxide addition on phase formation, microstructure, ferroelectric, dielectric, and piezoelectric properties of clay	Sujitra Unruan

No	Abstract Code	Title	Presenter
15	S2_P8	Effect of the B-site substitution by $(LiNb)^{4+}$ on phase formation, microstructure, and electrical properties of $Bi_{0.5}Na_{0.44}Ba_{0.06}TiO_3$ ceramics	Phamornnareumon Puphijit
16	S2_P9	Phase formation, microstructure, and electrical properties of BNTO-SBTO ceramics prepared via the solid-state combustion technique	Thanapon Sinkruason
17	S2_P10	Phase formation, electrical and energy storage properties of BNBT ceramics doped with La^{3+} synthesized by the solid-state combustion technique	Bhoowadol Thatawong
18	S3_P1	The study in microstructure and optical properties of perovskite films on ZnO layer dope with bismuth for application in perovskite solar cell	Peerawoot rattanawichai
19	S3_P2	Thermoelectric properties of Sn-substituted $YBa_2Cu_3O_{7-y}$ ceramics	Poom Prayoonphokkharat
20	S3_P3	Enhancement of electrochemical performance of asymmetric supercapacitors using violet laser treatment on N-doped reduce graphene oxide as cathode active material	Sarawudh Nathabumroong
21	S3_P4	Metal sulfide of Cu-Mn-S loaded-gel like carbon matrix as an electrode material for coin cell supercapacitors	Siriwimol Noymak
22	S3_P5	High-temperature thermoelectric properties of (1-x)DyBCO – xBNT ceramics	Paitoon Boonsong
23	S3_P6	Power conversion efficiency enhancement of organic photovoltaics using PEDOT:PSS films modified with ZnI_2	Sutthipoj Wongrerkdee
24	S3_P7	Activated carbon from sugarcane bagasse with KOH treatment as supercapacitor electrodes	Likkhasit Wannasen
25	S3_P8	Improvement of phase structure and energy storage properties of $[(0.72-x)Bi_{0.5}Na_{0.5}TiO_{3-0.28}SrTiO_{3-x}BaZr_{0.05}Ti_{0.95}]$ lead-free ceramics	Rattiphorn Sumang
26	S3_P9	Development thermal performance of banana using R32 in heat pump dryer system	Praphanpong Somsila
27	S3_P10	Study the influence of mesoporous titanium dioxide layer on perovskite solar cell efficiency	Tanapornchai Lertkittimask
28	S3_P11	Effects of temperature, electric filed and frequency on energy storage properties of BNT-BT-xBST ceramics	Muangjai Unruan

No	Abstract Code	Title	Presenter
29	S3_P12	Stability enhancement of $CsPbI_2Br$ inorganic perovskite solar cell by bromide addition	Narit Triamnak
30	S4_P1	Fabrication of translucent dental glass-ceramics using a low-cost fused deposition modeling 3D printer	Pratthana Intawin
31	S4_P2	Effect of various nanofillers on the insulating properties of polyethylene composites	Natcha Muenphan
32	S4_P3	The enhancement of polymer composite coating by using a waste glass powder as alternative reinforcement	Phummiphat Buaphuen
33	S4_P6	A novel multilayer particleboard prepared from milk package (U.H.T) wastes and coconut fibers	Pongsathorn Kongkaew
34	S4_P7	Crystal structure of Anadara granosa shell and phase transition under heat treatments	Kanokporn Kohmun
35	S4_P8	Fluid properties/phase transition of antimicrobial Eudragit RS/Clove oil in situ forming depot	Thawatchai Phaechamud
36	S4_P9	Dimensional stability and ionic conductivity of electrospun PEBAX/BCNCs nanofibrous membranes as high-performance separators for lithium-ion batteries	Phranot Ajkidkarn
37	S4_P10	Physical properties of mixed fly ash and rice husk ash light weight porous geopolymer	Reungruthai Sirirak
38	S4_P11	Influence of various nanofillers on mechanical and electrical properties of epoxy resin composites	Wanwilai Vittayakorn
39	S4_P12	Synthesis and characterization of magnetic tin/titania powder for Reactive Red 141 removal	Supinya Nijpanich
40	S4_P13	Polyester-releasing sesamin by electrospinning technique for the application of bone tissue engineering	Boontharika Thapsukhon
41	S4_P14	Optimization parameter of nonwovens from poly(lactic acid) and poly(butylene succinate) via melt blown	Thananya Cholprecha
42	S4_P15	Double-layer composite film of natural materials and mulch film application	Somsak Woramongkolchai
43	S4_P16	Poly(lactic acid) and polybutylene succinate films incorporated with modified zeolite	Poonsub Threepopnatkul

No	Abstract Code	Title	Presenter
44	S4_P17	Fabrication and characterisation of magnetic ZnO/TiO_2/graphene oxide for organic dyes removal	Parichat Chaunket
45	S4_P18	Theoretical and model study of light weight armour composite from 2-Dimension (2D) natural fabrics/polyester and epoxy for ballistic and stabbing protection	Thanyares Thongyos
46	S4_P19	Development and characterization of nano-ink from silicon carbide/multi-walled carbon nanotubes/synthesized silver nanoparticles for organophosphorus pesticide residuals detection	Wichaya Sirisom
47	S4_P20	Multifunctional biocomposite edible film coating of chitosan-konjac glucomannan: natural preservation in chicken sausages	Akkaracha Hanwattanakul
48	S4_P21	Development and properties of polypropylene/polyethylene vinyl acetate/ micro-cellulose for polishing materials application in thailand's jewelry industry	Kanyarat Namnon
49	S4_P22	Effect of foam nucleating agents on NR/PBAT TPV foam	Chanchai Thongpin
50	S4_P23	Influence of titanium dioxide particles on properties of low density polyethylene/poly(butylene adipate-co-terephthalate) films	Sudsiri Hemsri
51	S4_P24	Xanthan gum/carrageenan-based hydrogel pads with Okra mucilage powders for cosmeceutical and medical applications	Jaroenporn Chokboribal
52	S4_P25	Fabrication and development of color crystal glass by using natural raw materials	Nuttakant Suksamorn
53	S4_P26	Tapioca starch/PVA plastic films with water hyacinth powders: enhanced stability in direct contact with moisture	Voravadee Suchaiya
54	S4_P27	Removal of anionic species using zinc-aluminium layer double hydroxide films	Cheewita Suwanchawalit
55	S4_P28	Biopolymer blends based on poly(lactic acid) and polyamide for durable applications	Rattikarn Khankrua
56	S4_P29	Preparation and characterization of PLG microparticles for sustained release the protein by multiple emulsion method	Arphaphat Yenying
57	S4_P30	Clotrimazole-incorporated fatty acid-based in situ forming film containing pressure sensitive adhesive	Ei Mon Khaing

No	Abstract Code	Title	Presenter
58	S4_P31	Property improvement of PLA/PBAT blended with reprocessed PLA/PBAT using chain extenders	Bawornkit Nekhamanurak
59	S4_P32	Seasoning packaging for instant noodles from natural polymer blended films	Lecturer Yuttana Chaijalearn
60	S4_P33	Silk fibroin film fabrication for transparent Triboelectric nanogenerator	Jitrawan Noisak
61	S4_P34	Correlation of phase formation and microstructure of clay:phosphate rock:burnt chaff for calcined clay pellets as commercial substrate culture/planting material	Ruangwut Chutima
62	S4_P35	Effect of crosslinking agent on mechanical properties and water solubility of water-soluble film from blown film extrusion	Sitthi Duangphet
63	S5_P1	Recursive-formula for second-harmonic generation problem in photonic hypercrystal	Surawut Wicharn
64	S5_P2	Numerical simulations of nonlinear and chaotic responses in bulk antiferroelectrics using ammonium dihydrogen phosphate's parameters	Siew Choo Lim
65	S5_P3	A design of beam splitter based on asymmetric Y-junction waveguide with adjustable splitting ratio using air hole defect	Phachara Phongwisit
66	S5_P4	The evaluation of unsaturated polyester resin for use as neutron shielding materials	Thanongsak Nochaiya
67	S6_P1	Dielectric and impedance behaviours of Gd, Sm and Dy ions in the glass-matrix network	Thanapong Sareein
68	S6_P2	Preparation and characterization of lithium disilicate-fluorcanasite glass-ceramics for dental applications	Arnon Kraipok
69	S6_P3	Effect of CaO on the heat treatment temperature, microstructure and mechanical properties of lithium disilicate-based glass-ceramics for dental application	Manlika Kamnoy
70	S6_P7	The preparation of reversible thermochromic Mn-doped Ca-Zn-Al-O inorganic materials	Vorrada Loryuenyong
71	S6_P9	Automotive industrial waste-based pigment synthesis for application in ceramic glazes system	Siriwan Chokkha

No	Abstract Code	Title	Presenter
72	S6_P10	Fabrication of granulated foam glass as fillers in lightweight concrete application	Pat Sooksaen
~~73~~	~~S6_P11~~	~~Green synthesis of zinc oxide nanoparticles by pineapple peel extract using lye as alkali source~~	~~Roungruthai sirirak~~
74	S6_P12	Chemical stability of $Y_2Ti_2O_7$ yellow pigments in ceramic glazes and development of an appropriate glaze recipe	Niti Yongvanich
75	S6_P13	Phase formation and mechanical properties of a lithium disilicate glass-ceramic	Panyapon Saengchan
76	S6_P14	Effects of processing conditions on pore structures and properties of cement-based foam material	Angkana chumphu
77	S6_P15	Study of Kinuta glaez is recycling silica from glass beer bottle	Nattawut Ariyajinno
78	S6_P17	The influence of foaming agent and basalt fiber on the properties of lightweight geopolymer	Sasijuta Wattanarach
79	S6_P18	Crystal structure and electromagnetic properties of $CrFeO_3$-doped $BaZr_{0.1}Ti_{0.9}O_3$ multiferroic ceramics	Anurak Prasatkhetragarn
80	S6_P19	Comparison of natural and synthetic fibers on the properties of fiber cements	Piyalak Ngernchuklin
81	S7_P1	Nitrogen-doped carbon dots (N-CDs) as peroxidase mimic coupled with a laminated three-dimensional microfluidic paper-based analytical device (laminated 3D-μPAD) for smart sensing of total cholesterol from whole blood	Purim Jarujamrus
82	S7_P2	Silver nanoparticles decorated electrochemically reduced graphene oxide for an enzymatic electrochemical biosensor for highly selective and sensitive detection of glyphosate	Anchalee Samphao
83	S7_P3	Utilization of rubber tree bark as a carbon source for EAF steelmaking: carbon/slag interaction at 1550˚C	Wasutha Banditayaruck
84	S7_P4	Effects of arc currents and spraying distances on the microstructure and bonding strength of thermally sprayed Zn-Al alloy coatings	Chaiyasit Banjongprasert
~~85~~	~~S8_P2~~	~~Photoluminescence and magnetic characteristic of octahedron-like $NiFe_2O_4$ microcrystals processed by thermal decomposition~~	~~Arrak Klinbumrung~~

No	Abstract Code	Title	Presenter
86	S8_P4	Characterization of ancient Millefiori mosaic glass using PIXE and SEM-EDS	Pisutti Dararutana
87	S8_P5	Influence of Eu^{3+} doped lithium barium gadolinium phosphate glass for orange-reddish photonic devices	Phitsamai Kamonpha
88	S8_P6	A tribology investigation of ultra-ultrathin tetrahedral amorphous carbon films	Warintorn Chatarat
89	S8_P7	Cd-vapor thermal annealing of CdZnTe for room-temperature radiation semiconductor detectors	Hyojeong Choi
90	S8_P8	Structural and thermoelectric properties of $Cu_{1-x}Sb_xCrO_2$ delafossite oxide	Chutarat Yonchai
91	S8_P9	Structure and effect of diamagnetism on manganese lithium phosphate glass to cathode materials application	Pinit Kidkhunthod
92	S8_P10	Effect of various oxygen flow rate local structure and structural properties of vanadium oxide thin films prepared by radio-frequency reactive magnetron sputtering	Piyaporn Thangdee
93	S8_P11	Al_2O_3:C optically stimulated luminescence dosimetry for evaluation of potential factors contributing to entrance skin dose received in liver cancer patients undergoing Transarterial Chemoembolization	Siritorn Buranurak
94	S8_P12	Optical and structural properties of Eu^{3+} doped $MgO-Li_2O-Na_2O-BaO-B_2O_3$ glasses for scintillating glass applications	Watcharin Rachniyom
95	S8_P13	Synthesis of copper nanoparticles - polyvinylpyrrolidone composite materials using simultaneous irradiation process	Thanawat Kasemsankidakan
96	S8_P14	Effect of structural orientation on the chromatic characteristics in rubies	Chakkaphan Wattanawikkam
97	S8_P15	Investigation of local structure transformation in $La_{1-x}Sr_xFeO_3$ perovskite oxides by Synchrotron X-ray absorption spectroscopy	Jaru Jutimoosik
98	S8_P16	Effect of temperature on the chromaticity coordinates of blue and green InGaN light-emitting diodes	Nuttakrit Somdock
99	S8_P17	Phase transition and optical characteristics of Mg doped $CuAlO_2$ synthesized by a facile thermal decomposition process	Arrak Klinbumrung

No	Abstract Code	Title	Presenter
100	S8_P18	In situ XAS investigation of reduction and oxidation processes in cobalt and iron mixed spinels $CoFe_2O_4$	Chinawat Ekwongsa
101	S9_P1	Effects of morphological structure of NiO films prepared by chemical bath deposition on electrochromic properties	Watcharaporn Thongjoon
102	S9_P3	Structural investigation of La-doped HfO_2 thin films for use as ferroelectric materials	Sukanda Jiansirisomboon
103	S9_P4	Effect polymeric additives on physical and chemical properties of PSF/SiO_2- NH_2 composite membranes	Sunanta Thunta
104	S9_P5	Thin film nitrogen-doped carbon nanotubes synthesis via floating catalyst process	Theerapol Thurakitseree
105	S9_P6	The improvement of microstructure and piezoelectric properties of PZT (52/48) thin films via annealing prepared by RF magnetron sputtering	Pakinee Thongrit
106	S9_P7	Study hardness and preparation of layered zirconium nitride ceramic on zirconium substrate by nano indentation	Kunakorn Jongjareanwilai
107	S9_P8	Two shapes of ZnO nanostructure modified with metal adding for n-butanol response enhancement	Ekasiddh Wongrat
108	S9_P9	Deposition of silver-tantalum thin film for high infrared radiation reflection	Kanokporn Kohmun
109	S9_P10	Operando X-ray absorption spectroscopy study on sensing characteristic of the vertically aligned ZnO thin film for the methane gas sensor	Rungtiva Poo-arporn
110	S9_P11	Enhanced crystallinity and physical properties in lead perovskite bulks by metal addition	Jintara Padchasri
111	S9_P12	Real-time spectroscopy of transition states on surface modification of ZnO nanostructured thin films gas sensor during gas activated	Niyom Hongsith
112	S9_P13	Screen-printing of MWCNT-PEDOT:PSS based solution on bendable substrate for ammonia-sensing	Udomdej Pakdee
113	S9_P14	Crucial role of crystalline orientation of aluminum-doped zinc oxide seeding film on hydrothermally grown zinc oxide formation	Punlapa Borklom

No	Abstract Code	Title	Presenter
114	S9_P15	Optical studies of Ag nanoparticle/silica composite embedded epoxy based light guided plate	Aphisit Manivong
115	S9_P16	Rapid detection of melamine and its derivatives based on surface-enhanced raman spectroscopy using handheld raman spectrometer	Nongluck Houngkamhang
116	S9_P17	Fabrication of SnO_2 thin films by reactive gas-timing DC magnetron sputtering on LTCC substrate for NO_2 sensor	Wantana Koetniyom
117	S9_P18	Enhanced photocatalytic activity of ZnO nanostructures deposited on mesh through electrochemical deposition and thermal oxidation	Kamon Aiempanakit
118	S9_P19	Enhancement of photocatalytic degradation of carbofuran using Y_2O_3-BaO-ZnO nanocomposites	Supphadate Sujinnapram
119	S9_P20	Piezoelectric enhanced photocatalytic activity of PVDF-ZnO/Cu nanofibers	Atipong Bootchanont
120	S9_P21	Preparation of TiN nanorods for SERS substrate by controlling pulse width of high power impulse magnetron sputtering	Suwan Plaipichit
121	S9_P24	Enhanced electrical and optical properties of AZO thin film by controlling frequency and pulse width of HiPIMS	Peerapong Nuchuay
122	S9_P25	Structural and mechanical properties of TiAlN and gradient TiAlN films deposited by reactive pulsed DC magnetron sputtering	Montri Aiempanakit
123	S9_P26	Facile preparation of poly(n-isopropylacrylamide)/graphene oxide nanocomposites for chemotherapy	Phornsawat Baipaywad
124	S9_P27	Effect of rapid thermal annealing of HfN nanorod films deposited by reactive magnetron sputtering with glancing angle deposition technique	Wuttichai Phae-ngam
125	S9_P28	Optical and structural properties of WO_3 nanostructure films prepared by oblique angle deposition	Chaiyan Oros
126	S9_P29	Synthesis and characterization of 2H-pyrano[2,3,4- de]coumarin	Thananan Takonram
127	S9_P30	Fabrication of electrochromic VWO NR films by reactive co-magnetron sputtering with OAD technique	Jirarach Plirdpring

No	Abstract Code	Title	Presenter
128	S9_P31	Spectroscopic study on alternative plasmonic TiN-NR film prepared by R-HiPIMS with GLAD technique	Chamnan Promjantuk
129	S9_P32	The photoacoustic effect of CdS quantum dot on TiO_2	Tonnum Sujjaritturakarn
130	S9_P33	Growth of crystalline AlN thin film on unheated substrate by reactive magnetron sputtering with high field strength	Tanattha Rattana
131	S9_P35	Development of a high-performance portable Raman scattering-based sensing platform for antibiotic residue detection in pig farming	On-Uma Nimittrakoolchai
132	S9_P37	Oxygen plasma treatment time induced hydrophilicity of polydimethylsiloxane (PDMS) thin films for liquid lenses application.	Kamonchanok Duangkanya
133	S9_P38	Chemophysical H_2S sensing mechanism of $Au-WO_3$ heterointerfaces	Matawee Punginsang
134	S10_P1	The influence of silicon element-added DLC film on Ti–6Al–4V	Nutthanun Moolsradoo
135	S10_P2	The improvement in gas barrier performance of diamond-like carbon films deposited on polyethylene terephthalate sheets using bipolar pulsed-PECVD method	Sarayut Tunmee
136	S10_P3	Pure and co-emitter by charged iridium(iii) complexes in LECs device	Panida Seetawan
137	S10_P4	A novel charged iridium complex for organic light emitting diode (OLEDs)	Phantipha Dechboon
138	S10_P5	Development of an X-ray mirror based on ultrathin B4C/W multilayers prepared by magnetron sputtering	Phakkhananan Pakawanit
139	S10_P6	Room temperature gas sensor based on MXene-graphene modified ZnO for volatile organic compounds detection	Supaporn Kamlue
140	S10_P7	Microstructure and tribological behaviors of arc sprayed NiCrMoAl alloy coating after heat treatments	Aradchaporn Srichen
141	S11_P1	Quality assessment of different ozone treatments to extend shelf-life of banana (Musa acuminata)	Noppadon Chamchoi

No	Abstract Code	Title	Presenter
142	S11_P2	The comparison of ozone production with oxygen concentration and feed gas flow rate at atmospheric pressure	Noppadon Chamchoi
143	S11_P3	Application of plasma activated water (PAW) generated from gliding arc discharge (GAD) on the enhancement of seed germination and growth of Austrian winter (Pisum sativum)	Santosh Dhungana
144	S11_P4	Discharge duty cycles effects of 20 kHz air atmospheric pressure plasma jet on methylene blue solution degradation	Porramain Porjai
145	S11_P5	Modelling of a benzoxazinone process based on a pilot scale with scale-down approach	Thitirat Monprapakamon
146	S11_P6	Heat transfer modeling of deferasirox purification in a batch process	Naruporn Savetvivat
147	S11_P7	Stereoisomer identification using Raman spectroscopy and machine learning	Kanokpon Tipkan
148	S11_P8	Performance investigation of 2D convolutional neural networks in classifying stereoisomers from Raman datasets	Kantapong Sucharitpongpan
149	S11_P9	STEM Activities for Robot and Packaging Design Camp	Katchet Rattanabutbenja
150	S12_P1	Performance comparison of Ga and Ga/La alloy layered active magnetic regeneration beds in a rotary magnetic refrigeration prototype.	Nattapol Dedruktip
151	S12_P2	The effect of added indium nitrate and nickel nitrate on the magnetic and electrochemical properties of carbon nanofibers	Suminya Teeta
152	S12_P3	Properties of the glass formed from ground glass cullet via sintering	Ekdanai Deeprasertwong
153	S12_P4	Nanoparticulate modified microelectrode for neurotransmitters detection by fast-scan cyclic voltammetry	Nicha Sato
154	S12_P5	Electrochemical modification of high contact surfaces for antimicrobial applications	Lorvanhsith Luanghane
155	S14_P1	Glass production from rice husk ask as an imitation gemstone products	Kamoltip Pinnak
156	S14_P3	Nanostructures doping inside glass substrates utilizing metal-ion beam implantation technique	Pabitra Aryal

No	Abstract Code	Title	Presenter
157	S14_P4	Er^{3+}-doped barium sodium borate glasses development for 1.54 μm broadband amplifier and optical laser	Narun Luewarasirikul
158	S14_P5	Energy transfer, photo and radioluminescence properties of Gd^{3+} and Dy^{3+} co-doped ZnO–BaO–TeO_2 glasses	Kitipun boonin
159	S14_P6	Behaviors of TeO_2–B_2O–WO_3 glass system for ionizing radiation shielding performance: photon, protons and alpha particles	Mookda Srisuwan
160	S14_P7	X-ray induced optical luminescence and energy transfer mechanism from Gd^{3+} to Tb^{3+} ions in fluorophosphate scintillating glasses for X-ray detecting material	Piyachat Meejitpaisan
161	S14_P8	Photon interaction of molybdenum (Mo) based cesium tri-molybdate ($Cs_2Mo_3O_{10}$) and disodium dimolybdate ($Na_2Mo_2O_7$) single crystal scintillators	Wuttichai Chaiphaksa
162	S14_P9	Enhanced luminescence of Dy^{3+}-doped Ba-Na-B glasses: Gd^{3+}-Dy^{3+} energy transfer and oxide/oxyfluoride studies	Narun Luewarasirikul
163	S14_P10	Optical and scintillation properties of Mg^{2+} - co-doped $Gd_2YAl_{2.4}Ga_{2.6}O_{12}Ce$ ceramic scintillator	Prapon Lertloypanyachai
164	S14_P11	New developments in the Gd^{3+}/Sm^{3+} ions doped lithium aluminum borate glasses of luminescent materials for lighting applications	Wipakorn Rittisut
165	S14_P12	Radio and photo luminescence of Dy^{3+} ion doped bismuth barium gadolinium borate glass	Rungsan Ruamnikhom
166	S14_P13	Fabrication luminescence and radiation shielding properties of Gd_2O_3-La_2O_3-ZnO-B_2O_3-Sm_2O_3 glasses	Siriprapa Kaewjaeng
167	S14_P14	Optical and scintillation properties of Ce-doped $Y_2Si_2O_7$ single crystal	Prom Kantuptim
168	S14_P15	Tunable pink, orange, and reddish-orange emission of Pr^{3+}-doped sodium aluminum gadolinium phosphate glasses	Nuanthip Wantana
169	S14_P16	Modification of glaze for luminescence arts	Suebpong Powthai
170	S14_P17	Luminescence and energy transfer properties of Gd^{3+} and Dy^{3+} in borosilicate glasses	Suchart Kothan

No	Abstract Code	Title	Presenter
171	S14_P18	Radiation shielding properties of borosilicate glasses at 662 keV	Nuttawadee Intachai
172	S9_P39	Sequential injection analysis for mercury ion with modified screen-printed carbon electrode	Wanida Wonsawat
173	S3_P13	The study efficiency of chemical treatment on wastewater from crystallized mango factory	Soonthorn Tudkawe
174	S4_P36	Colorimetric biofilm sensor with anthocyanin for monitoring fresh pork spoilage	Jitlada Chumee
175	S11_P9	STEM activities for robot and packaging design camp	Sethakarn Prongnuch

Chairs/Co-Chairs Time Schedule

Chairs/Co-Chairs Time Schedule						
Chairs/Co-Chairs	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Dr. Nuttachai Jutong	10:15-12:15	**Chair_S1 (Room 1)**	10:15-12:15	**Chair_S1 (Room 1)**	10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Dr. Poramed Wongjom	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Chair_S1 (Room 1)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Wanchai Pijitrojana	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15	**Chair_S1 (Room 1)**	14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Sujitra Unruan	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:45	**Chair_S1 (Room 1)**	13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Sukanda Jiansirisomboon	10:15-12:15	**Chair_S2 (Room 2)**	10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:00	**Chair_S2 (Room 2)**	14:45-16:15		14:45-16:15	
Dr. Thitirat Charoonsuk	10:15-12:15	**Co-chair_S4 (Room 4)**	10:15-12:15	**Co-chair_S4 (Room 4)**	10:15-12:15	
	15:15-16:45	**Chair_S4 (Room 4)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:30	**Co-chair_S4 (Room 4)**	14:45-16:15	
Assoc. Prof. Theerachai Bongkarn	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Chair_S2 (Room 2)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Parkpoom Jarupoom	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Co-chair_S2 (Room 2)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Tosapol Maluangnont	10:15-12:00	**Chair_S9 (Room 5)**	10:15-12:15		10:15-12:15	

Chairs/Co-Chairs Time Schedule						
Chairs/Co-Chairs	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15	**Chair_S9 (Room 5)**	14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Soodkhet Pojprapai	10:15-12:15		10:15-11:45	**Chair_S2 (Room 2)**	10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Dr. Phakkhananan Pakawanit	10:15-12:15		10:15-11:45	**Co-chair_S2 (Room 2)**	10:15-12:15	
	15:15-16:45		13:00-14:00	**Chair_S2 (Room 2)**	13:00-14:30	
	16:45-18:15	**Co-chair_S2 (Room 2)**	14:45-16:15		14:45-16:15	
Dr. Pitak Laoratanakul	10:15-12:15	**Chair_S3 (Room3)**	10:15-12:15		10:15 - 12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Sasiphon Prasertpalichat	10:15-12:15	**Co-chair_S3 (Room 3)**	10:15-11:45	**Co-chair_S3 (Room 3)**	10:15-12:15	
	15:15-16:45		13:00-14:30	**Co-chair_S3 (Room 3)**	13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Dr. Pawin Iamprasertkun	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Chair_S3 (Room3)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Saichon Sriphan	10:15-12:15		10:45-12:15	**Co-chair_S3 (Zoom)**	10:15-12:15	
	15:15-16:45	**Co-chair_S3 (Room 3)**	13:00-14:30		13:00-14:30	
	16:45-18:00	**Chair_S3 (Room 3)**	14:45-16:00	**Chair_S3 (Room 3)**	14:45-16:15	
Dr. Noppadon Nuntawong	10:15-12:15		10:15-11:45	**Chair_S3 (Room 3)**	10:15-12:00	**Chair_S11 (Room 2)**
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Pongsakorn Kanjanaboos	10:15-12:15		10:15 - 12:15		10:15-12:15	
	15:15-16:45		13:00-14:30	**Chair_S3 (Room 3)**	13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	

Chairs/Co-Chairs Time Schedule						
Chairs/Co-Chairs	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Prof. Dr. Vudhichai Parasuk	10:15-12:15	**Chair_S4 (Room 4)**	10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:00	**Chair_S4 (Room 4)**			14:45-16:15	
Dr. Chakkaphan Wattanawikkam	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Co-chair_S4 (Room 4)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Supree Pinitsoontorn	10:15-12:15		10:15-12:15	**Chair_S4 (Room 4)**	10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:00	**Co-chair_S4 (Room 4)**	14:45-16:15		14:45-16:15	
Prof. Dr. Nantanit Wanichacheva	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30	**Chair_S4 (Room 4)**	13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Sukasem Watcharamaisakul	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30	**Co-chair_S4 (Room 4)**	13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Pakorn Opaprakasit	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:30	**Chair_S4 (Room 4)**	14:45-16:15	
Assoc. Prof. Dr. Udomsilp Pinsook	10:15-12:00	**Chair_S5 (Room 6)**	10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Worasak Sukkabot	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Chair_S5 (Room 6)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Sukkaneste Tungasmita	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	

Chairs/Co-Chairs Time Schedule						
Chairs/Co-Chairs	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
	16:45-18:15	Chair_S5 (Room 6)	14:45-16:30	Chair_S9, 10 (Room 5)	14:45-16:15	
Dr. Pinit Kidkhuntod	10:15-12:15		10:15-11:45	Chair_S8 (Room 7)	10:45-11:30	Co-chair_S8 (Room 7)
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15	Chair_S8 (Room 7)	14:45-16:15	
Asst. Prof. Dr. Waraporn Piyawit	10:15-12:15		10:15-12:15		10:15-11:45	Co-chair_S7 (Room 3)
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15	Chair_S7 (Room 2)	14:45-16:15	
Asst. Prof. Dr. Narit Triamnak	10:15-12:15		10:15-12:15		10:15-12:05	Chair (Zoom)
	15:15-16:45		13:00-14:30	Chair _ Special session (Room9)	13:00-14:00	Chair_S7 (Room 3)
	16:45-18:15		14:45-16:15	Co-chair_S7 (Room 2)		
Asst. Prof. Dr. Kittichai Sojiphan	10:15-12:15		10:15-12:15		10:15-11:45	Chair_S7 (Room 3)
	15:15-16:45		13:00-14:30		13:00-14:00	Co-chair_S7 (Room 3)
	16:45-18:15		14:45-16:15			
Dr. Narong Chanlek	10:15-12:15		10:15-11:45	Co-chair_S8 (Room 7)	10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Wuttichai Chaiphaksa	10:15-11:45	Co-chair-Special-S14(Room 8)	10:15-12:15		10:45-11:30	Chair_S8 (Room 7)
	15:15-16:45		13:00-14:30	Chair_S8 (Room 7)	13:00-14:30	
	16:45-18:15		14:45-16:15	Co-chair_S8 (Room 7)	14:45-16:15	
Dr. Mati Horprathum	10:15-12:00	Co-chair_S9 (Room 5)	10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
	10:15-12:15		10:15-12:15		10:15-12:15	

Chairs/Co-Chairs Time Schedule						
Chairs/Co-Chairs	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Dr. Phornsawart Baipaywad	15:15-16:45	**Chair_S9 (Room 5)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Wisanu Pecharapa	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Co-chair_S9 (Room 5)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Chaikarn Liewhiran	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15	**Co-chair_S9 (Room 5)**	14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Phitsanu Poolcharuansin	10:15-12:15		10:15-12:00	**Chair_S9, 10 (Room 5)**	10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Prof Dr. Nisanart Traiphol	10:15-12:15		10:15-12:00	**Co-chair_S9,10 (Room 5)**	10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Anurak Prasatkhetragarn	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:45	**Chair_S9, 10 (Room 5)**	13:00-14:30	
	16:45-18:15	**Co-chair_S13 (Zoom)**	14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Sutatch Ratanaphan	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:45	**Co-chair_S9,10 (Room 5)**	13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Dujreutai Pongkao Kashima	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:30	**Co-chair_S9,10 (Room 5)**	14:45-16:15	
Assoc. Prof. Dr. Viyada Harnchanapol	10:15-12:00		10:15-12:15		10:15-12:00	**Co-chair_S11 (Room 2)**
	15:15-16:45		13:00-14:30		13:00-14:30	

Chairs/Co-Chairs Time Schedule						
Chairs/Co-Chairs	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Oratai Jongprateep	11:00-12:30	**Chair_S12 (Room 9)**	10:45-11:45	**Chair_S12 (Room 9)**	10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Dr. Naray Pewnim	11:00-12:30	**Co-chair_S12 (Room 9)**	10:45-11:45	**Co-Chair_S12 (Room 9)**	10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Ratchatee Techapiesarncharoenkij	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:15	**Chair_S12 (Room 9)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Gasidit Panomsuwan	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:15	**Co-chair_S12 (Room 9)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Anucha Watcharapasorn	10:45-12:15	**Chair_S13 (Zoom)**	10:15-12:15		10:15-12:15	
	15:15-16:45	**Co-chair_S13 (Zoom)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Aurawan Rittidech	10:45-12:15	**Co-chair_S13 (Zoom)**	10:45-12:15	**Chair_S13 (Zoom)**	10:15-12:15	
	15:15-16:45		13:00-14:00		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Prof. Dr. Supon Ananta	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Chair_S13 (Zoom)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Prof. Dr. Gobwute Rujijanagul	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15	**Chair_S13 (Zoom)**	14:45-16:15		14:45-16:15	
	10:15-12:15		10:15-12:15		10:15-12:15	

Chairs/Co-Chairs Time Schedule						
Chairs/Co-Chairs	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Dr. Natthapong Wongdamnern	15:15-16:45		13:00-14:00	**Co-chair_S13 (Zoom)**	13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc.Prof.Dr. Jakrapong Kaewkhao	10:15-12:00	**Chair_S14 (Room 7)**	10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Asst. Prof. Dr. Piyachat Meejitpaisan	10:15-12:00	**Co-chair_S14 (Room 7)**	10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:00		14:45-16:15		14:45-16:15	
Dr. Eakgapon Kaewnuam	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Chair_S14 (Room 7)**	13:00-14:30		13:00-14:30	
	16:45-18:00		14:45-16:15		14:45-16:15	
Asst.Prof.Dr. Narun Luewarasirikul	10:15-11:45	**Chair_Special S14 (Room 8)**	10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:30	**Chair_S6 (Room 6)**	14:45-16:15	
Assoc. Prof. Dr. Pattarawagee Yasaka	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Chair_Special S14 (Room 8)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Dr. Nuanthip Wantana	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45	**Co-chair_ Special S14 (Room 8)**	13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Assoc. Prof. Dr. Sirithan Jiemsirilers	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30	**Chair_S6 (Room 6)**	13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Dr. Chatr Panithipongwut Kowalski	10:15-12:15		10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:30	**Co-chair_S6 (Room 6)**	13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
	10:15-12:15		10:15-12:15		10:15-12:15	

Chairs/Co-Chairs Time Schedule						
Chairs/Co-Chairs	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Asst. Prof. Dr. Arpapong Changjan	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:30	**Co-chair_S6 (Room 6)**	14:45-16:15	
Assist. Prof. Dr. Natthaphon Raengthon	10:15-12:15		10:15-11:15	**Chair_S5 (Room 6)**	10:15-11:45	**Chair_S6 (Room 5)**
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Dr. Nithiwach Nawaukkaratharnant	10:15-12:15		10:15-12:15		10:15-11:45	**Co-chair_S6 (Room 5)**
	15:15-16:45		13:00-14:30		13:00-14:30	
	16:45-18:15		14:45-16:15		14:45-16:15	
Dr. Phieraya Pulphol	10:15-12:15	**Co-chair_S2 (Room 2)**	10:15-12:15		10:15-12:15	
	15:15-16:45		13:00-14:00	**Co-chair_S2 (Room 2)**	13:00-13:45	
	16:45-18:15		14:45-16:15		14:45-16:15	

Keynotes/Invited Speakers Time Schedule

Keynotes/Invited Speakers time schedule						
Keynotes/Invited Speakers	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Prof. Dr. Vinich Promarak	10:15-10:45	**Keynote_S1 (Room 1)**	10:15-10:45		10:15-10:45	
Prof. Dr. Jingsheng CHEN	10:45-11:15	**Invited Speaker_S1 (Room 1)**	10:45-11:15		10:45-11:15	
Dr. Adisorn Tuantranont	15:15-15:45	**Keynote_S1 (Room 1)**	15:15-15:45		15:15-15:45	
Dr. Surbhi Gupta	15:45-16:15	**Invited Speaker_S1 (Room 1)**	15:45-16:15		15:45-16:15	
Prof. Dr. Atsufumi Hirohata	16:45-17:15	**Keynote_S1 (Room 1)**	16:45-17:15		16:45-17:15	
Assoc. Prof. Dr. Supab Choopun	17:15-17:45	**Invited Speaker_S1 (Room 1)**	17:15-17:45		17:15-17:45	
Prof. Dr. NAVNEET DABRA	10:15-10:45		10:15-10:45	**Invited Speaker_S1 (Room 1)**	10:15-10:45	
Assoc. Prof. Dr. Chatchawal Wongchoosuk	10:45-11:15		10:45-11:15	**Invited Speaker_S1 (Room 1)**	10:45-11:15	
Assoc Prof. Dr. Wanchai Pijitrojana	13:00-13:30		13:00-13:30	**Invited Speaker_S1 (Room 1)**	13:00-13:30	
Assoc. Prof. Theerachai Bongkarn	10:15-10:45	**Keynote_S2 (Room 2)**	10:15-10:45		10:15-10:45	
Assoc. Prof. Soodkhet Pojprapai	10:45-11:15	**Invited Speaker_S2 (Room 2)**	10:45-11:15		10:45-11:15	
Asst.Prof.Dr. Parkpoom Jarupoom	11:15-11:45	**Invited Speaker_S2 (Room 2)**	11:15-11:45		11:15-11:45	
Prof. Dr. DaeYong JEONG	15:15-15:45	**Invited Speaker_S2 (Room 2)**	15:15-15:45		15:15-15:45	
Dr. Yuka Takagi	15:45-16:15	**Invited Speaker_S2 (Room 2)**	15:45-16:15		15:45-16:15	
Dr. Thitirat Charoonsuk	16:45-17:15	**Invited Speaker_S2 (Room 2)**	16:45-17:15		16:45-17:15	
Dr. Wee Chen Gan	17:15-17:45	**Invited Speaker_S2 (Room 2)**	17:15-17:45		17:15-17:45	
Assoc. Prof. Dr Tosapol Maluangnont	10:15-10:45		10:15-10:45	**Invited Speaker_S2 (Room 2)**	10:15-10:45	
Dr. Shuting Chen	10:45-11:15		10:45-11:15	**Invited Speaker_S2 (Room 2)**	10:45-11:15	
Prof. Dr. Sedat Alkoy	13:00-13:30		13:00-13:30	**Invited Speaker_S2 (Room 2)**	13:00-13:30	

Keynotes/Invited Speakers time schedule						
Keynotes/Invited Speakers	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Prof. Dr. Ebru MENSUR	13:30-13:45		13:30-13:45	**Invited Speaker_S2 (Room 2)**	13:30-13:45	
Prof. Dr. Gobboon Lothongkum	14:45-15:15		14:45-15:15	**Keynote_S7 (Room 2)**	14:45-15:15	
Dr. Anchalee Manonukul	15:15-15:45		15:15-15:45	**Invited Speaker_S7 (Room 2)**	15:15-15:45	
Prof. Dr. Poramate Manoonpong	10:15-10:45		10:15-10:45		10:15-10:45	**Keynote_S11 (Room 2)**
Assoc. Prof. Dr. Montree Sawangphruk	10:15-10:45	**Keynote_S3 (Room 3)**	10:15-10:45		10:15-10:45	
Assoc. Prof. Dr. Rojana Pornprasertsuk	10:45-11:15	**Invited Speaker_S3 (Room 3)**	10:45-11:15		10:45-11:15	
Assoc. Prof. Dr. Thang Phan	15:15-15:45	**Invited Speaker_S3 (Room 3)**	15:15-15:45		15:15-15:45	
Assoc. Prof Dr. Boon Tong Goh	15:45-16:15	**Invited Speaker_S3 (Room 3)**	15:45-16:15		15:45-16:15	
Asst. Prof. Dr. Pongsakorn Kanjanaboos	16:45-17:15	**Invited Speaker_S3 (Room 3)**	16:45-17:15		16:45-17:15	
Assoc. Prof. Dr. Chesta Ruttanapun	17:15-17:45	**Invited Speaker_S3 (Room 3)**	17:15-17:45		17:15-17:45	
Prof. Dr. John Wang	10:15-10:45		10:15-10:45	**Keynote_S3 (Room 3)**	10:15-10:45	
Dr. Pawin Iamprasertkun	10:45-11:15		10:45-11:15	**Invited Speaker_S3 (Room 3)**	10:45-11:15	
Prof. Dr. Wee-Jun Ong	13:00-13:30		13:00-13:30	**Invited Speaker_S3 (Room 3)**	13:00-13:30	
Prof. Dr. Tosawat Seetawan	13:30-13:45		13:30-14:00	**Invited Speaker_S3 (Room 3)**	13:30-13:45	
Dr. Rongrong Cheacharoen	14:45-15:15		14:45-15:15	**Invited Speaker_S3 (Room 3)**	14:45-15:15	
Asst.Prof.Dr. Isaratat Phung-On	10:15-10:45		10:15-10:45		10:15-10:45	**Invited Speaker_S7 (Room 3)**
Prof. Dr. Pranut Potiyaraj	10:15-10:45	**Keynote_S4 (Room 4)**	10:15-10:45		10:15-10:45	
Assoc. Prof. Dr. Supree Pinitsoontorn	10:45-11:15	**Invited Speaker_S4 (Room 4)**	10:45-11:15		10:45-11:15	
Prof. Dr. Vudhichai Parasuk	15:15-15:45	**Invited Speaker_S4 (Room 4)**	15:15-15:45		15:15-15:45	

Keynotes/Invited Speakers time schedule						
Keynotes/Invited Speakers	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Assoc. Prof. Dr. habil. Amitesh Paul	15:45-16:15	**Invited Speaker_S4 (Room 4)**	15:45-16:15		15:45-16:15	
Asst. Prof. Dr. Nattakan Soykeabkaew	16:45-17:15	**Invited Speaker_S4 (Room 4)**	16:45-17:15		16:45-17:15	
Assoc. Prof. Dr. Winita Punyodom	17:15-17:45	**Invited Speaker_S4 (Room 4)**	17:15-17:45		17:15-17:45	
Prof. Dr. Nantanit Wanichacheva	10:15-10:45		10:15-10:45	**Invited Speaker_S4 (Room 4)**	10:15-10:45	
Assoc. Prof. Dr. Pakorn Opaprakasit	13:00-13:30		13:00-13:30	**Invited Speaker_S4 (Room 4)**	13:00-13:30	
Asst. Prof. Dr. Sukasem Watcharamaisakul	14:45-15:15		14:45-15:15	**Invited Speaker_S4 (Room 4)**	14:45-15:15	
Assoc. Prof. Dr. Wisanu Pecharapa	10:15-10:45	**Keynote_S9 (Room 5)**	10:15-10:45		10:15-10:45	
Prof. Dr. Hansoo Park	15:15-15:45	**Keynote_S9 (Room 5)**	15:15-15:45		15:15-15:45	
Assoc. Prof. Dr. Viyada Harnchana	15:45-16:15	**Invited Speaker_S9 (Room 5)**	15:45-16:15		15:45-16:15	
Asst. Prof. Dr. Phitsanu Poolcharuansin	16:45-17:15	**Invited Speaker_S9 (Room 5)**	16:45-17:15		16:45-17:15	
Asst. Prof. Dr. Theeranun Siritanon	17:15-17:45	**Invited Speaker_S9 (Room 5)**	17:15-17:45		17:15-17:45	
Assoc. Prof. Dr. Chaikarn Liewhiran	10:15-10:45		10:15-10:45	**Invited Speaker_S9,10 (Room 5)**	10:15-10:45	
Prof. Dr. BALAJI RAVURI	10:45-11:15		10:45-11:15	**Invited Speaker_S9,10 (Room 5)**	10:45-11:15	
Prof. Dr. Dheerawan Boonyawan	13:00-13:30		13:00-13:30	**Keynote _S9,10 (Room 5)**	13:00-13:30	
Asst. Prof. Dr. Sukkaneste Tungasmita	13:30-13:45		13:30-14:00	**Invited Speaker_S9,10 (Room 5)**	13:30-13:45	
Prof. Dr. Nisanart Traiphol	14:45-15:15		14:45-15:15	**Invited Speaker_S9,10 (Room 5)**	14:45-15:15	
Asst. Prof. Dr. Sutatch Ratanaphan	15:15-15:45		15:15-15:45	**Invited Speaker_S9,10 (Room 5)**	15:15-15:45	

Keynotes/Invited Speakers time schedule						
Keynotes/Invited Speakers	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Prof. Dr. Siriporn Jungsuttiwong	10:15-10:45	**Keynote_S5 (Room 6)**	10:15-10:45		10:15-10:45	
Assoc. Prof. Dr. Nawee Kungwan	10:45-11:15	**Invited Speaker_S5 (Room 6)**	10:45-11:15		10:45-11:15	
Dr. Noppadon Nuntawong	15:15-15:45	**Invited Speaker_S5 (Room 6)**	15:15-15:45		15:15-15:45	
Dr. Supawadee Namuangruk	15:45-16:15	**Invited Speaker_S5 (Room 6)**	15:45-16:15		15:45-16:15	
Asst. Prof. Dr. Keat Hoe Yeoh	16:45-17:15	**Invited Speaker_S5 (Room 6)**	16:45-17:15		16:45-17:15	
Assoc. Prof. Dr. Khian-Hooi Chew	17:15-17:45	**Invited Speaker_S5 (Room 6)**	17:15-17:45		17:15-17:45	
Dr. Han Seul Kim	10:45-11:15		10:15:10:45	**Invited Speaker_S5 (Room 6)**	10:45-11:15	
Assoc. Prof. Dr. Robin Chang Yee Hui	11:15-11:45		10:45-11:15	**Invited Speaker_S5 (Room 6)**	11:15-11:45	
Assoc. Prof. Dr. PRASIT THONGBAI	13:00-13:30		13:00-13:30	**Keynote_S6 (Room 6)**	13:00-13:30	
Assoc. Prof. Dr. Satoshi Tanaka	13:30-13:45		13:30-14:00	**Invited Speaker_S6 (Room 6)**	13:30-13:45	
Assoc. Prof. Dr. Kamonpan Pengpat	14:45-15:15		14:45-15:15	**Invited Speaker_S6 (Room 6)**	14:45-15:15	
Assoc. Prof. Dr. Patarawagee Yasaka	15:15-15:45		15:15-15:45	**Invited Speaker_S6 (Room 6)**	15:15-15:45	
Prof. Dr. Jayasankar C K	10:15-10:45	**Invited Speaker_S14 (Room 7)**	10:15-10:45		10:15-10:45	
Assoc. Prof. Dr. Pham Minh	15:15-15:45	**Invited Speaker_S14 (Room 7)**	15:15-15:45		15:15-15:45	
Assoc. Dr. Rajaramakrishna Rajanavaneethakrishna	16:45-17:15	**Invited Speaker_S14 (Room 7)**	16:45-17:15		16:45-17:15	
Assoc. Prof. Dr. Prayoon Songsiriritthigul	10:15-10:45		10:15-10:45	**Keynote_S8 (Room 7)**	10:15-10:45	
Asst. Prof. Dr. Krisanat Chuamsaamarkkee	13:00-13:30		13:00-13:30	**Invited Speaker_S8 (Room 7)**	13:00-13:30	

Keynotes/Invited Speakers time schedule						
Keynotes/Invited Speakers	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Dr. Kitiphat Sinthiptharakoon	13:30-13:45		13:30-14:00	**Invited Speaker_S8 (Room 7)**	13:30-13:45	
Dr. Narong Chanlek	14:45-15:15		14:45-15:15	**Invited Speaker_S8 (Room 7)**	14:45-15:15	
Dr.Nuanthip Wantana	15:15-15:45		15:15-15:45	**Invited Speaker_S9 (Room 7)**	15:15-15:45	
Prof. Dr. HongJoo Kim	10:15-10:45	**Invited Speaker_S14 (Room 8)**	10:15-10:45		10:15-10:45	
Dr. Marilou Cadatal-Raduban	15:15-15:45	**Invited Speaker_S14 (Room 8)**	15:15-15:45		15:15-15:45	
Asst. Prof. Dr. Kohei YAMANOI	16:45-17:15	**Invited Speaker_S14 (Room 8)**	15:45-16:15		15:45-16:15	
Mr. Murakami Yusuke	11:00-11:15	**Invited Speaker_S12 (Room 9)**				
Prof. Dr. Nagahiro Saito	11:15-11:45	**Invited Speaker_S12 (Room 9)**	11:15-11:45		11:15-11:45	
Mr. Amiruddi	11:45-12:00	**Invited Speaker_S12 (Room 9)**	11:15-11:45		11:15-11:45	
Prof Aye Aye Thant	15:15-15:30	**Invited Speaker_S12 (Room 9)**	11:15-11:45		11:15-11:45	
Prof Dr. Min Maung Maung	16:45-17:00	**Invited Speaker_S12 (Room 9)**	11:15-11:45		11:15-11:45	
Prof Dr. Hiroharu Ajiro	18:00-18:15	**Invited Speaker_S12 (Room 9)**	11:15-11:45		11:15-11:45	
Prof. Dr. Ahmad Safari	10:45-11:15	**Keynote_S13 (Zoom)**	10:45-11:15		10:45-11:15	
Prof. Dr. Zuo-Guang Ye	11:15-11:45	**Keynote_S13 (Zoom)**	11:15-11:45		11:15-11:45	
Asst. Prof. Dr. Saichon Sriphan	11:45-12:15	**Keynote_S13 (Zoom)**	11:45-12:15		11:45-12:15	
Prof. Dr. Shujun Zhang	15:15-15:45	**Keynote_S13 (Zoom)**	15:15-15:45		15:15-15:45	
Prof. Dr. Gobwute Rujijanagul	15:45-16:15	**Keynote_S13 (Zoom)**	15:45-16:15		15:45-16:15	

Keynotes/Invited Speakers time schedule						
Keynotes/Invited Speakers	**2nd December 2021**		**3rd December 2021**		**4th December 2021**	
Assoc. Prof. Dr. Oon Jew Lee	16:15-16:45	**Keynote_S13 (Zoom)**	16:15-16:45		16:15-16:45	
Prof. Dr. Roger W. Whatmore	16:45-17:15	**Keynote_S13 (Zoom)**	16:45-17:15		16:45-17:15	
Prof. Dr. K.C. James Raju	17:15-17:45	**Keynote_S13 (Zoom)**	17:15-17:45		17:15-17:45	
Asst. Prof. Dr. Sasipohn Prasertpalichat	17:45-18:15	**Keynote_S13 (Zoom)**	17:45-18:15		17:45-18:15	
Prof. Dr. Ramamoorthy Ramesh	10:45-11:15		10:45-11:15	**Keynote_S13 (Zoom)**	10:45-11:15	
Assoc. Prof. Dr. Anurak Prasatkhetragarn	11:15-11:45		11:15-11:45	**Keynote_S13 (Zoom)**	11:15-11:45	
Assoc. Prof. Dr. Hiroki Matsuo	11:45-12:15		11:45-12:15	**Keynote_S13 (Zoom)**	11:45-12:15	
Prof. Dr. Lane W. Martin	13:00-13:30		13:00-13:30	**Keynote_S13 (Zoom)**	13:00-13:30	
Prof. Dr. Supon Ananta	13:30-14:00		13:30-14:00	**Keynote_S13 (Zoom)**	13:30-14:00	

Hybrid

ICAPMA-JMAG 2021

Organized by i-STEM

IEEE MAGNETICS THAILAND CHAPTER

The American Ceramic Society www.ceramics.org CHAPTER Thailand

IEEE THAILAND SECTION 40TH ANNIVERSARY SINCE 1981

Website: www.matscitech-thailand.com/2021

E-mail: matscitech.thailand@gmail.com