

## **DOMINADOR DIZON MANGAO**



Mr. Dominador Dizon Mangao presently works as Education Specialist (Science Education) at the Research & Development Division of the Southeast Asian Ministers of Education Organization Regional Centre for Education in Science and Mathematics (SEAMEO RECSAM) in Penang, Malaysia. He served SEAMEO RECSAM for a total of 12 years where at first he was stationed at the Training Programme Division for almost seven and at R&D Division for five years. At RECSAM, Mr. Mangao is actively involved in conducting research, publication, regular training courses, in-country courses, workshops and developing instructional materials designed for science educators from the SEAMEO Member Countries, Asia-Pacific and African countries. He is presently the project coordinator of the Southeast Asia Basic Education Standards (SEA-BES) which published the Common Core Regional Learning Standards in Science and Mathematics and the past Editor-in-Chief of the Journal of Science and Mathematics Education in Southeast Asia (JSMESSEA), co-researcher of Assessment of Transversal Competencies: A Case Study in Malaysia under NEQMAP UNESCO, book editor and chapter author of some of the Centre's 'publications. He also served as Executive Secretaries of the 7<sup>th</sup> and 8<sup>th</sup> International Conference in Science and Mathematics Education (CoSMEd 2017 and 2019) organized by SEAMEO RECSAM.

Before his stint in RECSAM in February 2007 as a seconded officer, Mr. Mangao was an Education Program Specialist II at the Curriculum Development Division, Bureau of Elementary Education, Department of Education Central Office, Republic of the Philippines. He was the co-chairperson of the project 'Search for the Most Effective Public Elementary Schools in Science and Mathematics in 2005, coordinator of the Elementary English Curriculum under the Restructured Basic Education Curriculum (RBEC 2002) and National Evaluator of the Accreditation Program for Public Elementary Schools (APPES) as well as involvement in the School-Based Training Program in Science and Mathematics (SBTP) with the HRDS and JICA and member of the monitoring team for the TEEP .

In August 2016, he rejoined the Department of Education Central Office as Supervising Education Program Specialist at the Teaching and Learning Division, Bureau of Learning Delivery until December 31, 2016 however reconnected with SEAMEO RECSAM in January 2017.

Mr. Mangao rose from the ranks in the education department having served as a Teacher, Head Teacher III, School Principal I and II and Education Supervisor II of DepEd Regional Office 6. Mr. Mangao has attended numerous professional development programs in various educational institutions locally and internationally in science education, curriculum, instruction, assessment, research, and publications. He was a recipient of the Japanese Government scholarships (MONBUSHO) to pursue Science Education at Toyama University, Japan and Japanese Language at Kanazawa University, Japan; Study Mission in Tokyo, Osaka and Yamanashi, Japan sponsored by JICA; DepEd- University of the Philippines National institute

for Science and Mathematics Education (UP-NISMED) Short Term Scholarship for science supervisors.

AT RECSAM, Mr. Mangao has rich experiences in organizing and conducting science workshops, and coordinating science fairs. He has been presenting papers in regional and international conferences in the Philippines, Malaysia, Brunei Darussalam, Thailand, Nairobi, Kenya and Nanjing, China and has been conducting in-country training workshops in Malaysia, Brunei Darussalam, Indonesia, Philippines and Zambia. Mr. Mangao has published edited books, authored book chapters and research articles, reviewer of articles in journals and international conference proceedings. He was sent for a Study Mission to observe *La Main a la Pate* program in Paris and Nice, France sponsored by the French Academy of Sciences. Just recently, he was invited as Research International Fellow at the Center for Research in International Cooperation in Education Development (CRICED), University of Tsukuba, Japan.

### **Qualifications and Expertise**

M. A. Ed. (Biological Science), M. A. Ed. (Administration & Supervision-CAR), B.S. Agriculture (Agricultural Education- Cumlaude)

Expertise: Science Education, Curriculum Development, Lesson Study, Problem-Based Learning, Inquiry-Based Science, Alternative/Authentic Assessment, Active Teaching and Learning in Science, Socio-Scientific Issues-Based Approach, STEM Education, Academic Writing

### **Work Experiences**

Education Specialist (R&D), SEAMEO RECSAM, Supervising Education Program Specialist and Education Program Specialist II, Department of Education Central Office Philippines, Education Supervisor II, Department of Education Regional Office 6 Philippines, Public Elementary School Principal II & I, Head Teacher III, Teacher III, Teacher I, Division of Iloilo City, Department of Education Philippines

### **Specialized Training/Scholarships**

- Visiting Research International Fellow at the Center for Research in Educational Development (CRICED), University of Tsukuba, Japan
- Expert Dispatched Program for Technical Assistance to Zambian Educators organized by Ministry of Education, Science, Vocational Training and Early Education, Republic of Zambia with JICA funding
- Study Mission in Paris and Nice, France on *La Main a La Pate* (LAMAP) sponsored by French Academy of Science
- La Main a la Pate (LAMAP) Workshop for SEAMEO Science Educators sponsored by French Academy of Science, Malaysian Academy of Science held at RECSAM, Penang, Malaysia
- DepED-University of the Philippines National Institute for Science and Mathematics Education Integrated Short-term Scholarship Program for Science and Mathematics Supervisors (
- Japanese Government Scholarship (Ministry of Education, Culture, Sports, Science and Technology- MEXT), **Science Education**, Toyama University, Japan; Japanese Language, Kanazawa University, Japan
- RP-Japan Friendship Programme for the 21<sup>st</sup> Century sponsored by Japan International Cooperation Agency, Japan

### **Publication**

Editor-in-Chief/Associate Editor/Editor: Journal of Science and Mathematics Education in Southeast Asia (JSMSESA). SEAMEO RECSAM, Penang, Malaysia. Issue 2012-2019

### **Book Publications**

- 1) Mangao, D.D., Ahmad, N.J., & Isoda, M. (Eds) (2017). SEAMEO Basic Education Standards Common Core Regional Learning Standards in Mathematics and Science. SEAMEO RECSAM. Penang, Malaysia.
- 2) Mangao, D.D. & Ahmad, N.J. (Eds) (2017). Learning Science and Mathematics in the Classroom: Successful Lessons and Practices that Work. SEAMEO RECSAM. Penang, Malaysia.
- 3) Thien, M.L. & Mangao, D.D. (2016). Assessment of Transversal Competencies: A Case Study in Malaysia. SEAMEO RECSAM, Penang, Malaysia.
- 4) Mangao, D.D., Hazura, Ab Bakar, Foo, L. K., Devadason R.P. (Eds). (2014). Making Sense of Science through Inquiry: Problem-Based Learning at Work. SEAMEO RECSAM, Penang, Malaysia.
- 5) Mangao, D.D. & Ui Hock, C. (2013). Case studies: Benefits of student research. In Campbell, C., & Robottom, I. (Eds.) Learning science beyond the classroom. Penang: SEAMEO RECSAM.
- 6) Mangao, D.D. & Esdicul, A.M. Country reports: Philippines. In Devadason, R. P., Wahyudi, Cheah, U. H., & Ng, K. T. (Eds.) (2010). The State of Use of ICT in the Teaching and Learning of Science and Mathematics among Schools in SEAMEO Member Countries. Penang, Malaysia: SEAMEO RECSAM.
- 7) Mangao, D.D. In Azian, A. (Ed.). (2010). Integrating Climate Change Issues in Southeast Asian Schools. A Teachers' Guidebook. Penang, SEAMEO RECSAM

### **Peer-reviewed Proceedings paper/Conference paper**

- 1) Tahir, S. and Mangao, D.D. Towards Achieving the SDGs: The Case of SEAMEO RECSAM's SEAMEO Basic Education Standards Common Core Regional Learning Standards in Mathematics and Science (SEA-BES CCLRS) presented and published in South East Asia Sustainability Network (SEASN), Centre for Global Sustainability Studies (CGSS): SEASN: A Compendium of Selected Best Practices on Sustainable Development Goals. SEASN and CGSS, Universiti Sains Malaysia, Penang, Malaysia, 2019, 98 p.
- 2) Thien, M.L. & Mangao, D.D. Assessment on 21st Transversal Competencies: A Case Study in Malaysia. Paper presented at the 4th International Conference on Education for Sustainable Development held at SEAMEO RECSAM, Penang, Malaysia. on 25-27 October 2016, PowerPoint Presentation
- 3) Mangao, D.D. SEAMEO Basic Education Standards (SEA-BES): Responding to Equity and Equality in Education in the Southeast Asian Region. Paper presented at 6<sup>th</sup> International Conference on Science and Mathematics Education (6th CoSMEd 2015) at SEAMEO RECSAM Penang, Malaysia on 16-19 November 2015, 127 p.
- 4) Mangao, D.D. & Ng, K.T. In Zhang, B., Fulmer, G.W., Liu, X., Hu, W., Peng, S. and Wei, B. (Eds). International Conference on Science Education 2012 Proceedings - Science Education: Policies and Social Responsibility. Springer, 2012, 45-56, 241 p.
- 5) Aligaen, C.A., Mangao, D.D., & Laplai, Y. Climate Change Integrated Education Model: Building Adaptive Capacity for the Next Generation Projects in Thailand, Malaysia, Indonesia, Philippines and Lao PDR. Paper presented at the International Conference on Southeast Asian Weather and Climate (ICSA-WC 2013), Chiang Mai, Thailand on 27-29 November 2013, PowerPoint Presentation
- 6) Mangao, D. D. The Role of Regional Training Centre in Response to Call for Empowering Students in Experiential Science and Mathematics Learning. Paper presented at the 5th International Conference on Science and Mathematics Education (CoSMEd 2013) held at SEAMEO RECSAM, Penang, Malaysia on 11-14 November 2013, 160 p.
- 7) Mangao, D. D. Lesson Study: Student Participation. Paper presented at the 5th International Conference on Science and Mathematics Education (CoSMEd 2013) held at SEAMEO RECSAM, Penang, Malaysia on 11-14 November 2013, 160 p.
- 8) Mangao, D.D. & Ng, K.T. Search for SEAMEO Young Scientists (SSYS) –RECSAM's Initiative in Promoting Public Science Education: The Way Forward. Paper presented at the

International Conference on Science Education 2013, Nanjing University, Nanjing, China on 12-15 October 2012, 11 p.

- 9) Mangao, D. D. & Ng, K. T. Learning Science and Mathematics Beyond the Classroom through Student Research to promote Scientific Literacy. Paper presented at the 3rd International Conference on Science and Mathematics Education (CoSMEd 2009) held at SEAMEO RECSAM, Penang, Malaysia on 10-12 November 2009, 72 p.
- 10) Mangao, D. D. & Foo, L.K. Bridging the School and Community through Student Research: The 6th SSYS Experience. Paper presented at the International Conference in Education held at University of Brunei Darussalam, Brunei Darussalam on 21 – 24 May 2009, PowerPoint Presentation
- 11) Mangao, D.D. Science, Technology, Environment and Society (STES) Education: The SEAMEO RECSAM Experience. Paper presented at the 2nd International Conference on Science and Mathematics Education (CoSMEd) 2007 held at SEAMEO RECSAM, Penang, Malaysia, on 13-16 Nov 2007, 53 p.

### **Non-peer reviewed Proceedings/Conference paper**

- 1) Mangao, D.D. & Suhaidah Tahir. SEA-BES Phase 2: STEM Planning and Design Learning Model. Paper presented at Korean National University of Education (KNUE), Cheongju -si, Chungcheongbuk-do, Republic of South Korea, on 5-6 September 2019, PowerPoint Presentation
- 2) Mangao, D.D. Revisiting Science Process Skills: Fundamentals of Inquiry and STEM Education. Paper presented at International Conference on Education and Teacher Development, Casuarina@Meru, Perak, organized by the Institute of Teacher education Malaysia and Institute of Teacher Education Ipoh Campus on 23-25 July 2019, PowerPoint Presentation
- 3) Mangao, D.D. Going back to the Fundamentals: Science process skills and Context-based learning. Paper and workshop presented at Bondowoso Regency, East Java, Indonesia on 22-26 April 2019, PowerPoint Presentation
- 4) Kidman, G., Gesthuizen, R., Tan, H. & Mangao, D.D. Teachers design Thinking in STEM Contexts. A paper symposium presented at 1st International Conference on STEM Education, Universiti Sains Malaysia, Penang, Malaysia on 22-24 January 2019, 107 p.
- 5) Mangao, D.D., Ahmad, N.J., Isoda, M. SEAMEO Basic Education Common Core Regional Learning Standards in Science. A research proposal presented at Toho University, Shizuoka University, Chiba University and National Institute for Educational Policy Research, MEXT, Japan on 13-17 June 2016, 8 p.
- 6) Suhaidah Tahir & Mangao, D.D. Making STEM Education Work: Exploring Partnership between SEAMEO RECSAM and MOE Malaysia. Paper presented at SEAMEO Congress, Bangkok, Thailand on 21-22 October 2014, PowerPoint Presentation
- 7) Mangao, D.D. & Aligaen, J. Sustainability Science: The Experiences of School-based Learning Projects in Educating 21st Century Learners towards Sustainability. Paper presented at the International Conference on Education for Sustainable Development in the Context of K+12 Curriculum, Ecovillage Resort and Convention Center, Boracay Island, Malay, Aklan, Philippines on 22-24 October 2014, PowerPoint Presentation
- 8) Mangao, D.D. SEAMEO RECSAMs Efforts to Attain Sustainability Captured in its 9th Five-Year Development Plan. Paper presented during the 11th SMASE WECSA Regional Conference on The Way Forward of SMASE WECSA (Sustainability Beyond 2013) held in Nairobi, Kenya on 13-16 December 2011, PowerPoint Presentation
- 9) Mangao D.D. Enhancing Scientific and Technological Literacy (STL) in a Constructivist Science Classroom through Science, Technology, Environment and Society (STES) Education. Paper presented at the Center for Research and Innovation in Science and Mathematics Education, West Visayas State University, La Paz, Iloilo City, Philippines on 11 October 2010, PowerPoint Presentation
- 10) Mangao, D.D. Addressing Global Warming in the School Curriculum through Science, Technology, Environment & Society (STES) Education: The RECSAM Experience. Paper

presented at the 2010 AESTEP National Convention at Kalibo, Aklan, Philippines on October 8-10, 2010, PowerPoint Presentation

### **As Course Supervisor at SEAMEO RECSAM's Regular and Customised Courses**

1. Enhancing Subjective Learning in the Secondary Science Classroom for Zambian science educators organized by JICA Zambia and Ministry of Education, Science, Vocational Training and Early Education, Republic of Zambia, 10 - 28 February 2014
2. Making Sense of Primary Science Through Inquiry: Problem-Based Learning at Work for Southeast Asian primary science teachers organized by SEAMEO RECSAM, 29 April– 23 May 2013
3. Enhancing Subjective Learning in the Secondary Science Classroom for Zambian science educators organized by JICA Zambia and Ministry of Education, Science, Vocational Training and Early Education, Republic of Zambia, 14-January-1 February 2013
4. Developing 21<sup>st</sup> Century Skills for Meaningful Learning in Secondary Science for Indonesian secondary science teachers organized by Ministry of Education, Indonesia, 3 – 28 September 2012
5. Making Sense of Secondary Science through Inquiry: Problem-Based Learning at Work for Secondary science educators from Southeast Asia organized by SEAMEO RECSAM, 4-29 April 2011
6. Enhancing higher Order Thinking Skills (HOTS) in Secondary Science via Information and Communications Technology (ICT) for Biology teachers from Indonesia organized by Ministry of National Education, Indonesia, 1-26 November 2010
7. Improving Student Performance through Assessment for Science Educators from Uganda and Zambia organized by JICA Uganda and Zambia, 31 May -25 June 2010
8. Post Graduate Diploma of Education in Teaching Science and Mathematics: Teaching and Learning Science for Secondary teachers from Aceh, Indonesia organized by Government of Aceh, Indonesia, 1 March-20 August 2010
9. Developing Scientific Skills for Meaningful Learning in Primary Science for Primary science teachers from Southeast Asia organized by SEAMEO RECSAM, 6-31 July 2009
10. Developing Scientific Skills for Meaningful Learning in Secondary Science for Secondary science teachers from Southeast Asia organised by SEAMEO RECSAM, 2-27 March 2009
11. Professional Development Programme for secondary Science Educators for Secondary science teachers from Asia and Pacific organized by Colombo Plan Secretariat and Ministry of National Education, Indonesia, 13 October-7 November 2008
12. Enhancing Scientific and Technological Literacy in a Constructivist Learning Environment at the Secondary Level for Science Educators from Uganda, Nigeria and Zambia organized by JICA Uganda, JICA Nigeria and JICA Zambia, 2-27 June 2008
13. Investigating Interactions in Science, Technology, Environment and Society (STES) Education at the Secondary Level for Secondary science teachers from Southeast Asia organized by SEAMEO RECSAM, 2-27 July 2007

### **Instructional Materials Development as Course Supervisor at RECSAM's Training Courses**

- (1) Science Lesson Exemplars on Enhancing Subjective Learning in a Secondary Science Classroom, developed together with the 16 science educators from Zambia, Africa on 10-28 February 2014.
- (2) Science Lesson Exemplars on Making Sense of Primary Science through Inquiry: Problem-Based Learning at Work, developed together with the 13 primary science educators from SEAMEO member countries on 29 April -23 May 2013.
- (3) Science Lesson Exemplars to Develop and Enhance Subjective Learning in a Science Classroom for Meaningful Learning, developed together with 20 science educators from Zambia on 14 January – 1 February 2013.

- (4) Science Lesson Exemplars on Developing 21<sup>st</sup> century Skills for Meaningful Learning in Secondary Science (Biology), developed together with the 19 Biology teachers from Indonesia on 3 -28 September 2012.
- (5) Physics HOTS Lesson Exemplars to Develop Scientific and Technological Literacy in Secondary Schools, developed together with the 20 Physics teachers from Indonesia on 24 October – 18 November 2011.
- (6) Science Lesson Exemplars on Making Sense of Secondary Science through Inquiry: Problem-Based Learning at Work, developed together with the 25 secondary science educators from SEAMEO member countries on 4-29 April 2011.
- (7) Science Lesson Exemplars on Enhancing Higher Order Thinking Skills (HOTS) in Secondary Science via Information and Communications Technology (ICT), developed together with the 23 Biology teachers from Indonesia on 1-26 November 2010.
- (8) Science Lesson Exemplars on Developing Scientific Skills for Meaningful Learning in Secondary Science, developed together with the 11 secondary teachers from Aceh, Indonesia on 1 March - 20 August 2010.
- (9) Science Lesson Exemplars on Improving Student Performance through Assessment, developed together with the 26 science educators from Uganda and Zambia on 31 May -25 June 2010.
- (10) Science Lesson Exemplars on Developing Scientific Skills for Meaningful Learning in Primary Science, developed together with the 10 primary science teachers from SEAMEO member countries on 6-31 July 2009.
- (11) Science Lesson Exemplars on Developing Scientific Skills for Meaningful Learning in Secondary Science, developed together with the eight (8) secondary science teachers from SEAMEO member countries on 2-27 March 2009.
- (12) Science Lesson Exemplars on Enhancing Scientific and Technological Literacy in a Constructivist Learning Environment at the Secondary Level, developed together with the 27 secondary science teachers from Asia and Pacific sponsored by Colombo Plan Secretariat (10) and Ministry of Education, Indonesia (17) on 13 October-7 November 2008.
- (13) Science Lesson Exemplars on Enhancing Scientific and Technological Literacy in a Constructivist Learning Environment at the Secondary Level, developed together with the 28 science educators from Uganda, Nigeria and Zambia on 2-27 June 2008.
- (14) Science Lesson Exemplars on Investigating Interactions in Science, Technology, Environment and Society (STES) Education at the Secondary Level, developed together with the 17 secondary science teachers from SEAMEO member countries on 2-27 July 2007.

### **As Course Supervisor and Facilitator In-country Training Courses**

- Going back to Fundamentals: Science Process Skills and Contextual Learning conducted at Bondowoso Regency, East Java, Indonesia on 22-26 April 2019
- Integrating ICT into Primary Science Instruction conducted at SD Muhammadiyah Sapen School, Yogyakarta, Indonesia on 18 - 22 November 2013
- Integrating ICT into Primary Science Instruction conducted at Menteng 01 State Primary School, Jakarta, Indonesia on 26-30 November 2012
- Active Teaching and Learning in Science for Indonesian Primary School Teachers conducted at Bali, Indonesia on 10 – 14 October 2011
- Active Teaching and Learning for Indonesian Primary Science Teachers conducted at Al Azhar Rawamangun 13, Jakarta, Indonesia on 29 November – 3 December 2010
- Active Teaching and Learning for Brunei Secondary Science Teachers conducted at University of Brunei Darussalam on 27 September – 1 October 2010
- Active Teaching and Learning for Indonesian Primary and Secondary Science Teachers conducted at Jambi, Indonesia on 2-6 November 2009

## Awards and Recognition Received While at RECSAM

- Certificate of Appreciation: **Resource Person**, Regional MANCOM Conference, Department of Education Regional Office 6, Iloilo City, Philippines, October 29, 2019
- Certificate of Recognition: **Speaker**, Bridges Colloquium for Mentors, Guimaras State College, Guimaras, Philippines, October 26-27, 2019
- Certificate of Recognition: **Resource Speaker** and presenter, Seminar- Workshop of Teachers in ICT 2.0, Guimaras State College, Guimaras, Philippines, June 8-9, 2019
- Certificate of Recognition: **Resource Speaker**, International Seminar-Workshop on Science Teaching, Philippine Association for the Career Advancement of Educators, Bacolod City, Philippines, May 2-4, 2019
- Certificate of Recognition: **Facilitator/Coordinator**, Going Back to the Fundamentals for Science Education: Context-based Learning and Science Process Skill, Bondowoso District, East Java, MOE Indonesia, April 22-25, 2019
- Certificate of Recognition: **Workshop Coordinator**, Workshop on Fostering Imagination and Critical Thinking in Engineering Design Process: A Challenge to STEM Education, SEAMEO RECSAM, February 6-8, 2018
- Certificate of Recognition: **Resource Speaker**, International Seminar-Workshop on Science Teaching, Philippine Association for the Career Advancement of Educators, Baguio City, Philippines, December 7-9, 2018
- Certificate of Recognition: **Resource Person** on Maximizing the Use of School Gardens in Teaching Science and Mathematics during the “Training of Trainers on Scaling Up the School-Plus-Home Gardens Model in Southeast Asia organized by SEAMEO SEARCA, Los Banos, Philippines on 18-21 April 2017.
- Certificate of Appreciation: **Plenary Speaker**, Conference-Workshop on Harnessing ASEAN Experience on the Use of Language in Teaching Science and Mathematics: Transforming Learning through Active Partnership, DOST-SEI Philippines, National, December 5-7, 2017
- Certificate of Recognition: **Paper Review Editor, Paper/Poster presenter, Chair of Session** in the 7<sup>th</sup> International Conference on Science and Mathematics Education (CoSMEd 2017), SEAMEO RECSAM, November 13-17, 2017
- Certificate of Recognition: **Workshop Consultant**, Curriculum Synchronization Workshop between Brawijaya Smart School-Universiti Brawijaya Indonesia and SEAMEO RECSAM, Brawijaya Smart School-Brawijaya Universiti, SEAMEO RECSAM, July 19-22; May 22-24, 2017 and May 1-3, 2017
- Certificate of Recognition: **Project Coordinator**, SEA-BES Finalization of the Common Core Regional Learning Standards in Science and Mathematics, SEAMEO RECSAM, March 28-30, 2017

- Certificate of Recognition: **Keynote Speaker and Outstanding Alumnus** in the Field of Academe, 50<sup>th</sup> Foundation and 2<sup>nd</sup> Grand Alumni Homecoming of Badiangan National High School, Iloilo Badiangan National High School, December 28, 2016
- Certificate Appreciation: **Involvement in organizing and implementing the Philippines-SEAMEO RECSAM In-country Training Course**, ASMaC Philippines, SEAMEO RECSAM, December 5-9, 2016
- Certificate of Recognition: **Paper Presenter**, 4<sup>th</sup> International Conference on Education for Sustainable Development, ASMaC Philippines, SEAMEO RECSAM, October 25-27, 2016
- Certificate of Recognition: **Reviewer**, Development of the Multigrade Teach-Learn Package vis-à-vis Kto12 Curriculum Grades I-VI, DepED Central Office Philippines, October 19-24, 2016
- Certificate of Appreciation: **Resource Speaker** in the Disaster Risk Reduction Management Training Module Pilot Test Batch 1, DepED Central Office Philippines, October 1, 2016
- Certificate of Recognition: **Writer**, Crafting of Session Guide/Trainers' Training, DepED Central Office Philippines, September 26-30, 2016
- Excellence Award: **Excellence Service Award 2015**, SEAMEO RECSAM, July 2016
- Certificate of Appreciation: **Workshop Facilitator**, Academic Writing and Paper Presentations for Nakhon Sawan Rajabhat University, Thailand, SEAMEO RECSAM, July 18-20, 2016
- Certificate of Recognition: **Writer**, Open and Distant Learning (ODL) Learning Science and Mathematics Together, SEAMEO RECSAM, May 25-26, 2016
- Certificate of Recognition: **Researcher** for a Regional Study on Assessment of Transversal Competencies in the Asia-Pacific: A Case Study in Malaysia, UNESCO Asia Pacific Regional Bureau for Education, May 10, 2016
- Certificate of Appreciation: **Workshop Facilitator**, Introduction to Academic Writing, SEAMEO RECSAM, March 29-30, 2016
- Certificate of Recognition: **Project Coordinator**, SEA-BES Revision of the Draft of the Common Core Regional Learning Standards in Science and Mathematics, SEAMEO RECSAM, March 24-25, 2016
- Certificate of Appreciation: **Member**, Organising Committee in the 10<sup>th</sup> Regional Congress Search for SEAMEO Young Scientists (SSYS), SEAMEO RECSAM, March 7-11, 2016
- Certificate of Appreciation: **Demonstration Teacher**, Xth APEC-Tsukuba International Conference: Developing International Perspectives on Energy Efficiency through Cross-Border Learning: Lesson Study Approach, CRICED-University of Tsukuba, SEAMEO RECSAM, February 13, 2016
- Certificate of Recognition: **Project Coordinator**, SEA-BES Revision of the Draft of the Common Core Regional Learning Standards in Science and Mathematics, SEAMEO RECSAM, January 27-28, 2016
- Certificate of Recognition: **Contribution in the Malaysia/UNESCO-IBE Needs Assessment Workshop for Strengthening STEM Curricula for Girls in Africa and Asia and the Pacific Phase 1 MOE Malaysia IBE-UNESCO GENEVA**, SEAMEO RECSAM, January 18-20, 2016



- Certificate of Recognition: **Best in Poster** during the International Conference on Science and Mathematics Education (CoSMEd 2015), SEAMEO RECSAM, November 16-19, 2015
- Certificate of Recognition: **Brief Paper Reviewer, Classroom Practitioner Paper Reviewer, Evaluation Committee, Liaison Committee, Secretariat, Parallel Session, Workshop Co-Chair** of the International Conference on Science and Mathematics Education (CoSMEd 2015), SEAMEO RECSAM, November 16-19, 2015
- Certificate of Recognition: **Project Coordinator**, SEA-BES Regional Consultative Meeting and Workshop for the Development of Common Core Regional Learning Standards in Science and Mathematics, British Council, SEAMES, IPST, SEAMEO RECSAM, October 20-22, 2015
- Certificate of Recognition: **Facilitator**, Professional Learning Community Program: Symposium on Lesson study – Creating Challenging Problems to Stimulate Children’s Thinking, CRICED, University of Tsukuba, Japan, Teacher Training Division, MOE Malaysia, SEAMEO RECSAM, August 17 and 19, 2015
- Certificate of Recognition: **Facilitator**, Workshop on Test Item Construction for Assessing Socio-Scientific Understanding, SEAMEO RECSAM, August 4-6, 2015
- Certificate of Recognition: **Co-Editor**, Workshop on Promoting Thinking Skills through Blended Learning Tools for Borderless Learning, SEAMEO RECSAM, May 28-29, 2015
- Certificate of Recognition: **Co-Editor**, Workshop on the Development of Malaysian Science Teachers Quality Standards Using Southeast Asia Regional Standards for Science Teachers, SEAMEO RECSAM, May 26-27 2015
- Certificate of Recognition: **Resource Speaker**, International Conference on Education for Sustainable Development in the Context of K+12 Curriculum at Boracay Island, Aklan, Philippines, Association of Science and Mathematics Coaches of the Philippines-SEAMEO-RECSAM in collaboration with DepED and CHED, Iloilo City, Philippines, October 22-24, 2014
- Certificate of Appreciation: **Parallel Session Speaker** at the SEAMEO Congress: Southeast Asia in Transition: Re-Thinking Education, Science and Culture for Regional Integration Bangkok, Thailand, SEAMEO Secretariat, British Council, and IPST, Bangkok, Thailand, October 21-22, 2014
- Certificate of Appreciation: **Poster Presenter** at the SEAMEO Congress: Southeast Asia in Transition: Re-Thinking Education, Science and Culture for Regional Integration Bangkok, Thailand, SEAMEO Secretariat, British Council, and IPST, Bangkok, Thailand, October 21-22, 2014
- Certificate of Appreciation: **Member**, Domain Technical Review Panel of the Southeast Asia Primary Learning Metrics(SEA-PLM) Project lead by ACER under the guidance of SEAMEO Secretariat and UNICEF EAPRO, Bangkok, Thailand, October 2014
- Certificate of Recognition: **Expert Dispatch** – to conduct monitoring and evaluation as well as provide technical inputs to Zambian science teachers and educators who attended training at SEAMEO RECSAM organized by Japan International Cooperation Agency (JICA) Zambia and the Ministry of Education, Science, Vocational Training and Early Education, Republic of Zambia on 7-11 July 2014

- Certificate of Appreciation: **Rapporteur and Participant**, Science Across the World Curriculum Workshop at RECSAM, Penang, Malaysia, SEAMEO RECSAM, Penang, Malaysia, June 19-20, 2014
- Certificate of Appreciation: **Rapporteur and Participant** to the Southeast Asia Regional Standards for Science Teachers (SEARS-ST) 2<sup>nd</sup> workshop for the development of framework of practice for science teachers at RECSAM, Penang, Malaysia, SEAMEO RECSAM, Penang, Malaysia, June 16-18, 2014
- Certificate of Appreciation: **Participant** to the Workshop on Developing Malaysian Mathematics Teacher Quality Standards Based on SEARST-MT) at RECSAM, Penang, Malaysia, SEAMEO RECSAM, Penang, Malaysia, June 12-13, 2014
- Certificate of Appreciation: **Delegate**, RECSAM's 10<sup>th</sup> Five-Year Development Plan Workshop at SEAMEO RECSAM Penang, Malaysia, SEAMEO RECSAM, Penang, Malaysia, June 9-11, 2014
- Certificate of Appreciation: **Facilitator**, Science and mathematics program for Corporate Social Responsibility at Penang, Malaysia, SEAMEO RECSAM and PEMENANG, Penang, Malaysia, June 4-5, 2014
- Certificate of Appreciation: **Presenter/Resource Person** on Science Literacy and Active Learning Strategies during the MRSM Chemistry Teachers Education Summit 2014, International Teacher Training Institute, MARA, Malaysia, Selangor, Malaysia, April 21-24, 2014
- Certificate of Appreciation: **Judge** during the Malaysian International Young Inventors Olympiad (MIYIO) at Tun Syed Sheh Shahabudin Science Secondary School Penang, Malaysia, University Science Malaysia, Ministry of Education Malaysia, Penang, Malaysia, April 17-20, 2014
- Certificate of Appreciation: **Rapporteur** during the Southeast Asia regional Standards for Science Teachers at RECSAM, SEAMEO RECSAM, Penang, Malaysia, January 20-22, 2014
- Certificate of Appreciation: **Oral Paper Presenter** during the International Conference on Southeast Asian Weather and Climate at Chiang Mai, Thailand, Chiang Mai Rajabhat University, Green tea Foundation, Chiang Mai Thailand, IPST, Bangkok, Thailand, November 27-29, 2013
- Certificate of Recognition: **Brief Paper Reviewer** during the International Conference on Science and Mathematics Education (CoSMEd 2013) at Penang, Malaysia, SEAMEO RECSAM and partners, Penang, Malaysia, November 11-14, 2013
- Certificate of Recognition: **Paper Presenter** during the International Conference on Science and Mathematics Education (CoSMEd 2013) at Penang, Malaysia; SEAMEO RECSAM and partners, Penang, Malaysia, November 11-14, 2013
- Certificate of Recognition: **Chair of the workshop** during the International Conference on Science and Mathematics Education (CoSMEd 2013), SEAMEO RECSAM and partners, Penang, Malaysia, November 11-14, 2013
- Certificate of Appreciation; **Facilitator/Expert Dispatched Program** for technical assistance to Zambian Educators held in Livingstone, Zambia, JICA –Zambia and Ministry of Education, Science, Vocational Training and Early Education, Zambia, July 8-12, 2013

- Certificate of Appreciation: **Facilitator** of In-Country Training for Indonesian Primary Science Teachers, Yogyakarta, Indonesia, SD Muhammadiyah Sapen Yogyakarta and Ministry of National Education, Indonesia, June 2013
- Certificate of Appreciation: **Facilitator** of In-Country Training for Indonesian Primary Science Teachers, Jakarta, Indonesia, Ministry of National Education, Indonesia, December 23-30, 2012
- Certificate of Recognition: **Editorial Team Member** in Malaysia Toray Science Foundation Editing Workshop for Selected Winning Entries of MTSF Science Education Award, SEAMEO RECSAM Penang, Malaysia, June 25-28, 2012
- Certificate of Appreciation: **Facilitator**, Community Project between SEAMEO RECSAM and SK Pos Dipang, Kampar, Perak, SEAMEO RECSAM, Penang, Malaysia, June 4-7, 2012
- Certificate of Facilitation: **Resource Person** during the 11<sup>th</sup> SMASE WECSA Regional Conference, Ministry of Education, Kenya and JICA Kenya Office, Kenya, December 13-16, 2011
- Certificate of Appreciation: **Facilitator** of In-Country Training for Indonesian Primary Science Teachers, Jakarta, Indonesia, Ministry of National Education, Indonesia, November 29-3 December 2010
- Certificate of Recognition: **Resource Speaker** in the 2010 AESTEP National Convention, AESTEP, Inc., Iloilo City, Philippines, October 10, 2010
- Certificate of Appreciation: **Speaker** in the Lecture-Forum at Center for Teaching Excellence at West Visayas State University, Iloilo City, Philippines, West Visayas State University, Iloilo City, Philippines, October 11, 2010
- Certificate of Recognition: **Chair of Workshop** : International Conference on Science and Mathematics Education , SEAMEO RECSAM, Penang, Malaysia, November 10-12, 2009
- Certificate of Recognition: **Course Facilitator**: In-Country Training Course for Indonesian Primary School Teachers, Jambi , Indonesia, Ministry of National Education, Indonesia, November 2-6, 2009
- Certificate of Appreciation: **Paper Presenter**: 14th International Conference on Education” Bridging Worlds: Making Connections in Education at UBD, Universiti Brunei Darussalam, Brunei, May 21-24, 2009
- Certificate of Recognition: **Interpreter**: National Seminar on Lesson Study: Japanese Lesson Study Model at RECSAM, Penang, Malaysia, SEAMEO RECSAM, Penang, Malaysia, August 21-22, 2008
- Certificate of Recognition: **Paper and Workshop Presenter**: International Conference on Science and Mathematics Education at RECSAM Penang, Malaysia, SEAMEO RECSAM, Penang, Malaysia, November 13-16, 2007
- Certificate of Recognition: **Chair of Liaison Committee**: International Conference on Science and Mathematics Education at RECSAM, Penang, Malaysia, SEAMEO RECSAM, Penang, Malaysia, November 13-16, 2007
- Certificate of Appreciation: 40th Anniversary Celebration of SEAMEO RECSAM, SEAMEO RECSAM, Penang, Malaysia, September 4, 2007

- Certificate of Recognition: **Course Workshop Facilitator**: Cooperative Learning at Le Paris Hotel & Resort Port Dickson, Negeri Sembilan, Kolej Matrikulasi Johor, Malaysia, July 6-8, 2007
- Certificate of Appreciation: **Facilitator**: Regional Training of Trainers on Human Values-Based Water, Sanitation and Hygiene Education, SEAMEO RECSAM, Penang, Malaysia, May 27, 2007

## Participation in Trainings/Conferences/Workshops while at RECSAM

### Curriculum/Science Education/Professional Development

- 1st International Conference on Educational Leadership & Management October 1- 4, 2019 conducted by Institute Aminuddin Baki, MOE, Malaysia,
- Master Class 1st International Conference on Educational Leadership & Management October 1-4, 2019, Institute Aminuddin Baki, MOE, Malaysia
- 4th International Conference on GCED, September 3-4, 2019, UNESCO APCEIU, South Korea
- Evidence-Based Strategies for Journal Improvement Workshop on July 11, 2018 Malaysian Citation Centre, Malaysia
- Leveraging the Multifunctionality of School Gardens on April 16-18, 2018, SEARCA, Philippines
- 4<sup>th</sup> International Conference on Education for Sustainable Development: Collaboration and Linkages: Keys for Global Educational Integration on 25-27 October 2016 conducted by AsMAC Philippines and SEAMEO RECSAM in Penang, Malaysia
- Critical Success Factor Workshop: Learning Activity Management Systems on 23-24 May 2016 conducted by SEAMEO RECSAM Penang, Malaysia
- Workshop on Introduction to Academic Writing on 29-30 March 2016 conducted by SEAMEO RECSAM Penang, Malaysia
- SEAMEO Basic Education Standards (SEA-BES) Development of Common Core Regional Standards in Science and Mathematics on 2 April, 7, 21-22 May, 23 July, 27 August, 2015 conducted by SEAMEO RECSAM Penang, Malaysia.
- Professional Learning Community (PLC) Programme: Symposium on Lesson Study –Creating Challenging Problems to Stimulate Children’s Thinking on 17 and 19 August 2015 at Penang and Putrajaya, Kuala Lumpur, Malaysia conducted by Ministry of Education Malaysia, SEAMEO RECSAM and CRICED, Tsukuba University, Japan

- Southeast Asia Primary Learning Metrics (SEA-PLM); Domain Technical Review Panels Meeting on 11-13 February 2015 conducted by ACER and UNICEF EAPRO, Bangkok, Thailand
- Workshop on Promoting Thinking Skills Through Blended Learning Tools for Borderless Learning on 28-29 May 2015 conducted by RECSAM, Penang, Malaysia
- Workshop on Development of Malaysian Science Teachers Quality Standards Using Southeast Asia Regional Standards for Science Teachers on 26-27 May 2015 conducted by RECSAM, Penang, Malaysia
- Seminar on STEM Education for 21<sup>st</sup> Century Skills “Brightening Awareness on STEM Education as the National Agenda” on 14-15 May 2015 conducted by RECSAM, Penang, Malaysia
- Workshop on Differentiated Instruction and STEM: Enhancing Mathematical Thinking on 9 to 10 March 2015 conducted by SEAMEO RECSAM, Penang, Malaysia
- Workshop for the Development of Framework for Science Teachers on the Southeast Asia Regional Standards for Science Teachers (SEARS-ST) on 16-18 June 2014 conducted by RECSAM, at RECSAM, Penang, Malaysia
- SEAMEO RECSAM’s 10<sup>th</sup> Five-Year Development Plan Workshop at RECSAM on 9-11 June 2014
- Workshop on Southeast Asia Regional Standards – Science Teachers (SEARS-ST) 2014
- Geoscience Information for Teachers Workshop, European Geosciences Union, Park Royal Hotel, Penang, Malaysia, June 2011
- Joint RECSAM/ICASE Seminar on “Innovations in Science and Technology Education (STE) for the 21<sup>st</sup> Century, SEAMEO RECSAM, Penang, Malaysia, February 2011
- 17<sup>th</sup> Conference of Commonwealth Education Ministers, Kuala Lumpur Convention Centre, June 2009
- Climate Change Awareness Seminar for School Administrators, Community Leaders and General Public, SEAMEO RECSAM, Penang, Malaysia, June 2009
- Total Quality Management conducted by Malaysia Productivity Corporation, SEAMEO RECSAM, Penang, Malaysia, August 2009
- Joint RECSAM/ICASE Regional Seminar “The Way Forward for Science and Technology Education: Implications for Policy Makers” conducted by Prof. Jack Holbrook, ICASE President, SEAMEO RECSAM, Penang, Malaysia, February 2009
- National Seminar on Lesson Study: The Japanese Lesson Study Model conducted by Tsukuba University Japan, SEAMEO RECSAM, Penang, Malaysia, August 2008
- 2<sup>nd</sup> National Education Leaders Forum, SEAMEO Secretariat, Bangkok, Thailand, November 2007
- Regional Training of Trainers (TOT) Course on Human Values-Based Water, Sanitation and Hygiene Education: Integrated Lessons for SEA, SEAMEO RECSAM, Penang, Malaysia, May 2007
- Capacity Building on Marketing and Communications of SEAMEO Units, SEAMEO Secretariat, SEAMEO RECSAM, Penang, Malaysia, April 2007

## **PEDAGOGY**

- Useful 10 Minutes Teaching Aids Using Local Materials for Effective Teaching and Learning of Science, SEAMEO RECSAM, Malaysia, April 8-9, 2019
- Enhancing Critical and Computational Thinking through Design-based Approach in STEM Context, SEAMEO RECSAM, Malaysia, March 26-28, 2019
- Workshop on Fostering Imagination and Critical Thinking in Engineering Design Process: A Challenge to STEM Education conducted by Prof Tairo Nomura, Saitama University, Japan at SEAMEO RECSAM, Penang, Malaysia, 6-8 February 2018

- Science and Technology Education Leveraging Relevance (STELR) Science Technology Engineering Mathematics (STEM) Workshop at SEAMEO RECSAM, Penang, Malaysia, on 9-11 August 2017
- Workshop on Building a Spirit of Entrepreneurship through Science Education conducted at SEAMEO RECSAM, Penang, Malaysia, on 15-16 February 2017
- Helping Students Become Competent in HOTS through Mathematics Teaching and Learning conducted by Dr. Yeap Ban Har, Marshall Cavendish Singapore at SEAMEO RECSAM, Penang, Malaysia, on 23-24 January 2017,
- Fundamentals of Inquiry conducted by Petrosains, The Discovery Centre at SEAMEO RECSAM, Penang, Malaysia, 5-7 February 2014
- Authentic Learning Contexts for Action-Based Problem Solving, conducted by Dr. Lindsey Conner, University of Canterbury, Christchurch, New Zealand, May 2013
- Developing Children's Mathematical Thinking: An Essence of Pedagogical Content Development in Japanese Textbooks, conducted by Prof. Masami Isoda, Tsukuba University, Japan, SEAMEO RECSAM, Penang, Malaysia, July 2012
- What Learning about Learning Teaches about Teaching, conducted by Dr. Jon A. Scaife, University of Sheffield, UK, SEAMEO RECSAM, Penang, Malaysia, June 2011
- Creative Toys for Learning Science: Science Popularisation through Low-cost and Locally Available Materials, conducted by Mr. Hideo Nakano, JICA Senior Volunteer, SEAMEO RECSAM, Penang, Malaysia, April 2011
- Talking Science, Thinking Science: Making Teaching and Learning More Dialogic conducted by Stuart Naylor, Millgate House Education, UK, SEAMEO RECSAM, Penang, Malaysia, March 2011
- Making Science Content Meaningful Through Fun and Creative Activities conducted by Dr. Janchai Yingprayoon, ICASE Past President, SEAMEO RECSAM, Penang, Malaysia, April 2010
- Science as a Platform for Effective Integration of ICT, Mathematics & Language conducted by Mr. Colin Webb, University of Western Sydney, Australia, SEAMEO RECSAM, Penang, Malaysia, July 2009
- Making Science Content Meaningful Through Fun and Creative Activities conducted by Dr. Janchai Yingprayoon, ICASE Past President, SEAMEO RECSAM, Penang, Malaysia, March 2009
- A Workshop on Early Childhood Education: Working with Children and Families using an Emergent Curriculum Model conducted by Dr. Linda Newman, UWS, Australia, SEAMEO RECSAM, Penang, Malaysia, July 2008
- Problem-Based Learning (PBL) in Primary and Secondary Science and Mathematics Classroom conducted by Dr. Ann Lambros, Wake Forest University, North Carolina, USA, SEAMEO RECSAM, Penang, Malaysia, April 2008
- Learning to Think, Thinking to Learn: Making Sense of Science in the 21<sup>st</sup> Century conducted by Ms. Barbara Spur and Mary Loveless, New Zealand, SEAMEO RECSAM, Penang, Malaysia, July 2008
- Improving Learning in the Science Classroom conducted by Ms. Barbara Spur and Mary Loveless, New Zealand, SEAMEO RECSAM, Penang, Malaysia, July 2007

## **ASSESSMENT**

- Workshop on Test Item Construction for Assessing Socio-Scientific Understanding (SSI), SEAMEO RECSAM, Penang, Malaysia, August 4-6, 2015
- Utilising the Trends in International Mathematics and Science Study (TIMSS) to Improve Teaching and Learning in the Mathematics Classroom and the Curriculum, SEAMEO RECSAM, Penang, Malaysia, June 2011
- Constructive Assessment, or Testing to Destruction?" conducted by Dr. Jon A. Scaife, University of Sheffield, U.K, SEAMEO RECSAM, Penang, Malaysia, June 2010
- Constructive Assessment, or Testing to Destruction?" conducted by Dr. Jon A. Scaife, University of Sheffield, U.K, SEAMEO RECSAM, Penang, Malaysia, June 2009

- Like Doctor, Like Teacher . . . Teaching and Assessing for Learning in Science: A Constructivist Model” conducted by Dr. Jon A. Scaife, University of Sheffield, U.K., SEAMEO RECSAM, Penang, Malaysia, June 2008

## **TECHNOLOGY**

- Learning Science Through Games, Simulations, Animations and Mobile Devices, SEAMEO RECSAM Penang, Malaysia, October 2013
- Seminar on Teacher Standards and the Teaching of Mathematics, SEAMEO RECSAM Penang, Malaysia, March 2013
- Going Global in SEARCH for Science and Mathematics Researchers for a Sustainable Future: Development of e-Learning Resource Materials to Promote ESD and EFA, SEAMEO RECSAM, Penang, Malaysia, June 2011
- WEB 2.0: A New Wave of Innovation for Teaching and Learning Science, SEAMEO RECSAM, Penang, Malaysia, October 2010
- Intel Teach Program Essentials Course Master Facilitator, Intel Education Program, Intel Malaysia, Penang, Malaysia , January 2010
- SMART Interactive Teaching Workshop conducted by ep-tec SMART Certified Master Trainer, SEAMEO RECSAM, Penang, Malaysia , March 2009
- Using Computers to Assess and Enhance Teaching Effectiveness conducted by Dr. Larry Nelson, Curtin University, Australia, SEAMEO RECSAM, Penang, Malaysia, March 2007

## **Contact**

Telephone: +604 6522760

Fax: +6046522737

Mobile: +60164623214

Email: [dominador\\_mangao@recsam.edu.my](mailto:dominador_mangao@recsam.edu.my)