

The 10th Annual International Conference 2020

on Social Sciences

Connecting the world through innovation
and sustainable development

October 15th- 16th, 2020
Banda Aceh, Indonesia



BOOK OF PROGRAM



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**The 10th Annual International Conference 2020
on Social Sciences**

Universitas Syiah Kuala

***“Connecting the World through Inovation and
Sustainable Development”***

ISSN: 2089-208X

**Banda Aceh, Aceh, Indonesia
October 15-16, 2020**

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Welcome Speech from Rector of Universitas Syiah Kuala

Assalamu 'alaikum warahmatullahi wabarakatuh,

In the name of Allah, the Most Beneficent and the Most Merciful. May peace, mercy, and blessings of Allah be upon you. Sholawat and salam may everlastingly be upon our adoration, Great Prophet Muhammad SAW, who had guided and led us from darkness into the shining bright path.

Dear colleagues, professors, lecturers, researchers, ladies and gentlemen. On behalf of Universitas Syiah Kuala, I would like to express my sincere gratitude and welcome you to the 10th Annual International Conference (AIC) 2020. It is an annual conference, started in 2011 and organized by Universitas Syiah Kuala, the largest and oldest public university in Aceh. This year, the conference is conducted virtually. As usual, the conference is divided into three sub-conferences: the 10th AIC on Sciences and Engineering, the 10th AIC on Environmental and Life Sciences, and the 10th AIC on Social Sciences. Additionally, for the 10th AIC on Environmental and Life Sciences 2020, this year, it is held in conjunction with the 12th IMT-GT UNINET (Indonesia-Malaysia-Thailand Growth Triangle University Network) BIOSCIENCE International Conference 2020.

I would like to thank all the keynote speakers. Prof. Dr. Wouter Dewulf, University of Antwerp and C-MAT (Belgium); Prof. Hamzah Fansuri, Ph.D., Institut Teknologi Sepuluh Nopember (ITS) (Indonesia); Prof. Ts. Dr. Uda Bin Hashim, Universiti Malaysia Perlis (UniMAP) (Malaysia); Prof. Ian Singleton FHEA, Edinburgh Napier University (United Kingdom); Prof. Benoit Dayrat, Pennsylvania State University (USA); Dr. Hiroshi Miyake Kitasato University (Japan); Prof. Mohammad Basyuni, Ph.D., Universitas Sumatera Utara (Indonesia) who have allocated their time to fulfil the invitation, and to share knowledge and experiences from their respective academic institutions.

There has always been a gap between peoples and communities who can make effective use of technology and those who cannot. For that matter, all academicians, researchers, and practitioners should consider humanity to make a peaceful world. With humanity, we could change to a better environment and a better life. We believe in knowledge, research, and technology for all people, minorities, people with disabilities, and helping anyone. No matter how much we can accomplish by ourselves, it is never sufficient in this world of knowledge. Therefore, this conference's focal drive is to exchange ideas, and by participating in this exchange, it is hoped that all parties who may benefit from the conference can use it in their work areas. The conference's agenda covers a wide range of exciting topics related to all theoretical and practical aspects, in Sciences and Engineering, Environmental and Life Sciences, and also Social Sciences.

I hope that all findings disseminated in the conference will be published in international proceedings, and all parties involved can benefit and apply the new ideas in the future. I also hope that this conference can bridge and enhance further cooperation and network among the committee, attendees, and keynote speakers in research, publication, or other future academic activities.

Finally, my deepest gratitude goes to the advisory board, organizing committee, international scientific committee, institutions, companies, and volunteers who have contributed to this seminar's success. The committee has organized a vibrant scientific program and presented a highly respected and internationally notorious speakers. Please accept our sincere apologies should some inconveniences occur before, during, or after the event.

Finally, by Allah's grace and permission, **the 10th Annual International Conference Universitas Syiah Kuala 2020** is officially opened. I wish you a very productive, successful, and enjoyable conference.

Wassalamu 'alaikum warahmatullahi wabarakatuh,

Prof. Dr. Ir. Samsul Rizal, M.Eng.
Rector of Universitas Syiah Kuala

Welcome Speech from Chairperson

Assalamu 'alaikum warahmatullahi wabarakatuhu,

On behalf of the organizing committees, I would like to welcome all of you to Banda Aceh, Indonesia, for the 10th Annual International Conference (AIC) 2020. This conference is hosted regularly by Universitas Syiah Kuala since 2011. This conference is divided into three conference tracks which are Science and Engineering (SE), Environmental and Life Sciences (ELS), and Social Sciences (SS). In this year, the 10th AIC on ELS is held in conjunction with the 12th IMT-GT UNINET Biosciences International Conference in virtual format.

Under the theme of *"Connecting the world through innovation and sustainable development"*, the keynote speeches will be delivered by Prof. Dr. Wouter Dewulf from The University of Antwerp, Belgium; Prof. Ian Singleton from Edinburgh Napier University, UK; Prof. Dr. Uda Bin Hashim from Universiti Malaysia Perlis, Malaysia; Assoc. Prof. Indra Gunawan from University of Adelaide, Australia; Prof. Benoit Dayrat from Pennsylvania State University, USA; Assoc. Prof. Hiroshi Miyake from Kitasato University, Japan; Prof. Dato' Dr. Aileen Tan Shau Hwai from Universiti Sains Malaysia, Malaysia; Assoc. Prof. Anchana Prathep from Prince Songkla University, Thailand. We are also honoured to welcome Prof. Hamzah Fansuri, Ph.D from Institut Teknologi Sepuluh Nopember, Indonesia; Prof. Mohammad Basyuni, Ph.D from Universitas Sumatera Utara, Indonesia; and Prof. Dr. H. Zulkardi, M. I. Komp., M.Sc. from Universitas Sriwijaya, Indonesia as our invited speakers.

The conference has received 136 full papers and 3 abstracts in total, whereby 38 papers have been accepted by the committees for poster presentation and 101 papers for oral presentation. Papers from SE track will be published on IOP Conference Series: Material and Science Engineering while Paper from ELS track will be published on IOP Conference Series: Earth and Environmental Sciences indexed by Scopus in the first quarter of 2021. Selected papers from Social Sciences will be published in Studies of English Language and Education Journal (Sinta 1) and Jurnal Dinamika Akutansi dan Bisnis (Sinta 2).

To all members of the organizing committees, the international scientific committees, the reviewers, the editors, the moderators and the collaboration partners (Universiti Sains Malaysia and Prince Songkla University), we would like to thank all of them for their tremendous efforts to organize this virtual conference successfully. My sincere gratitude goes to Prof. Taufik Fuadi Abidin, Prof. Nasrul, Dr. Hizir, Dr. Suhartono, Dr. Eng. Sugiarto, Dr. Ing. Agus Arip Munawar, Dr. Elizar, and Dr. Hartati Oktarina for their support and contribution.

We look forward to having a successful conference, and we hope that all attendees enjoy and benefit from this conference. Also, let's hope this Covid-19 global pandemic will be over as soon as possible so this virtual conference will be the first and the last.

Best regards,

Dr. Dewi Yunita
Chairperson

Keynote & Invited Speakers

Assoc. Prof. Indra Gunawan

University of Adelaide (Australia)



Associate Professor Indra Gunawan is currently working at the, Faculty of the Professions, the University of Adelaide. His position is the Discipline Head of Management and Associate Professor in Complex Project Management in the Adelaide Business School. His works have been published in many peer-reviewed journals, including International Journal of Project Management; International Journal of Production Research; Reliability Engineering and System Safety; IEEE Transactions on Industrial Informatics; International Journal of Reliability, Quality and Safety Engineering; Quality and Reliability Engineering International; International Journal of Project Organisation and Management; and International Journal of Quality and Reliability Management.

Prof. Dr H. Zulkardi

Sriwijaya University (Indonesia)



A Prof. Dr H. Zulkardi, M. I. Komp., M. Sc. is Currently working at Universitas Sriwijaya (UNSRI) Palembang. His field is mathematics education, and he is passionate about developing mathematics education in Indonesia. His research has been related to Realistic Mathematics Education (RME). For more than a decade, he has been part of the team for the Development of Indonesian Realistic Mathematics Education Institute (IP PMRI). Together with his team, developing, researching and disseminating RME or PMRI in Indonesia for a meaningful mathematics learning. In addition, PISA-like problems and PISA testing-related research are also his areas of interest.

Guidelines

Zoom Virtual Meeting

All events in this conference, including plenary sessions and oral presentation sessions, will be conducted in ZOOM virtual meeting using this following link:

<https://s.id/AICUnsyiah2020>

Official Language

The official language for 10th Annual International Conference (AIC) 2020 is English. All presentations including questions and answers (Q&A) must be delivered in English.

Guideline for Participants

Time Allocation for Presenters

ORAL PRESENTER: Each presenter is allocated 15 minutes for oral presentation, the questions and discussions. A typical presentation has a 10-minute talk, 4-minute discussion, and 1-minute shift to the next presenter. Session times are listed in the program book to allow attendees to select the presentations they wish to attend. Consequently, the moderator will strictly enforce these time limits. Please refer the Oral Presenter guide (next page) for the details

VIDEO POSTER PRESENTER: Each presenter is allowed to prepare 3 minutes VIDEO to show and explain the poster. The poster and video must contain AIC 2020 logo (downloadable at <https://s.id/logoAIC2020>) and your affiliated university/institution Logo. The video is then submitted to <https://s.id/VideoAIC2020> with the name of the file: VIDEO POSTER AIC2020_(Your ID Paper).

Audio Visual Equipment

All sessions in this virtual conference are presented by zoom.

The links including username and ID meeting will be sent to the corresponding author as soon as the author submit the camera-ready manuscript.

Rooms in UPT TIK, Universitas Syiah Kuala, Banda Aceh, Indonesia are prepared for hosts and moderators and are equipped with a set of mobile camera, headset, laptop, and LCD TV Display Monitor.

Certificate

Only author who present the paper will receive a “Presenter” certificate. Other authors will receive the certificate of paper presentation as long as they attend their session in the zoom (with no additional cost).

No-show Policy

Every accepted paper to AIC 2020 MUST present the paper in oral/poster sessions. The AIC 2020 organizing committee reserves the right to remove a paper from the final proceedings if it was not presented at the virtual conference.

Authors of no-show papers will not have their registration fees refunded.

Best Oral Presenter and Poster Presenter

Best presenter (oral/poster) and best paper will be selected by scientific panels (Editorial Boards and Moderators). The winner will be given a certificate and gift.

ORAL PRESENTER GUIDE

The virtual conference will be performed using Zoom.

- 1) As a presenter, you are required to upload your presentation slides in PPT format to <https://s.id/PPTupload-AICUnsyiah2020> with the name of the file: ORAL_Section's Name_Your Paper ID, for example: ORAL-ELS-Bio-3595 in appropriate folder:
 - a. Social Sciences for presenters from Social Science (SS) section,
 - b. Environmental and Life Sciences – BIOSCIENCES for presenters from Environmental and Life Sciences – Biosciences (ELS-Bio section),
 - c. Sciences and Engineering for presenters from Science Engineering (SE) section.
- 2) During the meeting, the room host will ensure that you have appropriate permissions. Please make sure that your computer microphone is muted until it is time to present. Participant must indicate the section's name and the ID paper in front of participant's name before joining the room, for example: **SE_4231_Budi Hartanto.**
- 3) The room host will welcome all the attendees and the moderator will introduce the speaker at the appropriate time.
- 4) When it is your time to present:
 - a. The room host will give you access to share your screen. Please be sure that your slides are ready to appear when the session starts, and presenter view is turned off.
 - b. Unmute yourself and turn your video off during presentation.
 - c. During your portion of the presentation, attendees will see your slides and hear your audio.
 - d. We encourage you to place a photo of yourself and your contact information as the first slide so attendees can know who is talking.
 - e. Please be sure you are in full presentation mode of Power Point and you are not sharing the presenter screen with your notes and view of the next slide.
 - f. You will have control to advance your slides as needed.
- 5) Presenter is given at around 10 minutes for presentation and 5 minutes for discussion. Once you have completed your presentation, click "Stop Sharing" to give control back to the host / moderator.
- 6) Questions & Answers:
 - a. Attendees will be able to ask questions via chat feature by clicking button at the bottom of their screen. Please mention your name and affiliation in your question.
 - b. Moderators will monitor the questions and hold all questions until the Q&A portion of the session.
 - c. At the beginning of the Q&A session, the moderator will ask presenters to turn their video on.
 - d. Video capabilities will be turned on during Q&A periods so attendees can see who is answering the question.
- 7) If you are unable to share your screen during your presentation, please advise the room host at the beginning of the session. Room host will share your presentation and give you access to advance the slides from the moderator's screen.

NON-PRESENTER GUIDELINES

The virtual conference will be performed using Zoom.

- 1) Non-presenter is expected to join the zoom at least 15 minutes before the schedule. The link is <https://s.id/aicunsyiah2020>.
- 2) Non-presenter participants must indicate the section's name in Invited Speaker session and label with KIS in front of the participant's name before joining the room, for example:
SE_KIS_Budi Hartanto.
- 3) The tentative schedules of the keynote speakers and invited speakers can be downloaded from the [AIC2020 website](#).
- 4) Questions & Answers:
 - a. Attendees will be able to ask questions via chat feature by clicking button at the bottom of their screen. Please mention your name and affiliation in your question.
 - b. Moderators will monitor the questions and hold all questions until the Q&A portion of the session.
 - c. At the beginning of the Q&A session, the moderator will ask presenters to turn their video on.
 - d. Video capabilities will be turned on during Q&A periods so attendees can see who is answering the question.

Technical Program Schedule (Times in Local Western Indonesia Time)

DAY 1 (15 October 2020)

Time	Description	Zoom	
08:00 – 08:30	Registration	AIC	
08:30 – 08:45	Opening by MC & Prayers (Reciting Qur'an, Seulawat Badar, Pray)	AIC	
08:45 – 08:55	Singing the National Anthem of Indonesia (Indonesia Raya)	AIC	
08:55 – 09:00	Profile of Universitas Syiah Kuala	AIC	
09:00 – 09:10	Welcoming Remark by the Conference Director (Dr. Dewi Yunita, S.TP., M.Res.)	AIC	
09:10 – 09:20	Welcoming Remark by the Rector of Universitas Syiah Kuala (Prof. Dr. Ir. Samsul Rizal, M.Eng.)	AIC	
09:20 – 09:30	Photo session and break	AIC	
09:30 – 10:00 (10.30 – 11.00 MYT)	Prof. Ts. Dr. Uda Bin Hashim (University Malaysia Perlis, Malaysia) “Potential innovation to detect Covid-19 virus: quantitative approach”	AIC Moderator: Dr. Dipl. Ing., Rita Andini, M.Sc.	
10:00 – 10:30 (13.30 – 14.00 ACDT)	Assoc. Prof. Indra Gunawan (University of Adelaide, Australia) “Modelling and simulation in complex project management: system dynamics approach to analyse maintenance and reliability”		
10:30 – 11:00	Discussion	AIC	
11:00 – 11:30	INVITED SESSION (Parallel) and Discussion	Prof. Hamzah Fansuri, Ph.D (ITS, Indonesia) “Fly ash-based geopolymers and their ability to immobilize heavy metal ions”	SE Moderator: Prof. Dr. Nasrul, ST., MT.
		Prof. Dr. H. Zulkardi, M.I.Komp., M.Sc. (Unsri, Indonesia) “Development research in mathematics education in Indonesia: some milestones”	SS Moderator: Elizar, S.Pd, M.Ed(MT), Ph.D.
		Prof. Mohammad Basyuni, Ph.D (USU, Indonesia) “Macrozoobenthic diversity serve as an indicator of mangrove restoration”	ELS Moderator: Dr. Ichwana, ST., MP.
11:30 – 12:00	Poster Session	SE/SS/ELS	
12:00 – 13:30	Break		
13:30 – 14:30	Parallel Session 1	SE/SS/ELS	
14:30 – 15:00 (09.30 – 10.00 CEST)	Prof. Dr. Wouter Dewulf (The University of Antwerp, Belgium) “Innovation, legislation and disruption, enablers or disablers on the road towards sustainability for air transport”	AIC Moderator: Dr. Syaifullah, ST., M.Eng.	
15:00 – 15:30 (09.00 – 09.30 BST)	Prof. Ian Singleton (Edinburgh Napier University, UK) “Microbial spoilage and pathogen contamination of fresh agricultural produce”		
15:30 – 16:00	Discussion	AIC	
16:00 – 16:30	Break		
16:30 – 18:00	Parallel Session 2	SE/SS/ELS	

DAY 2 (Friday, 16 October 2020)

Time	Description	Zoom
08:00 – 08:15	Registration	AIC
08:15 – 09:30	Parallel Session 3	SE/SS/ELS
09:30 – 10:00 (15 Oct 2020, 22.30 – 23.00 EDT)	Prof. Benoit Dayrat (Pennsylvania State University, USA) “The gastropod biodiversity of the mangroves of South-East Asia”	AIC Moderator: Dr. Darwin, S.TP., M.Sc
10:00 – 10:30 (11.00 – 11.30 MYT)	Prof. Dato’ Dr. Aileen Tan Shau Hwai (Universiti Sains Malaysia, Malaysia) “Sustainable farming of future seafood to climate solution”	
10:30 – 11:00 (10.30 – 11:00 ICT)	Assoc. Prof. Anchana Prathep (Prince Songkla University, Thailand) “Seagrass biodiversity and conservation in Thailand, a great opportunity for the sea lovers”	
11:00 – 11:30 (13:00 – 13:30 JST)	Assoc. Prof. Dr. Hiroshi Miyake (Kitasato University, Japan) “Jellyfish: its usefulness and harmfulness”	
11:30 – 12:00	Discussion	AIC
12:00 – 14:00	Break	
14:00 – 16:00	Parallel Session 4	SE/SS/ELS
16:00 – 16:30	Break	
16:30 – 17:00	Announcement of best papers, best presenters, and best posters (Dr. Suhartono, S.Si., M.Sc.)	AIC
17:00 – 17:15	Closing remark by the head of Institute for Research and Community Services and announcement of the 11 th AIC 2021 (Prof. Dr. Taufik Fuadi Abidin, S.Si., M.Tech.)	AIC

Parallel Session Schedule (Oral Presentation) (Times in Local Western Indonesia Time)

Room SS1

Time : **October 15, 2020 / 13:30 – 14:30 WIB**
Session Chair (Moderator) : **Dr. Iskandar AS, S.Pd, M.A**

Time	Papers and Presenters	Paper Code
13:30 – 13:45	A study of the correlation between students' creativity and their reading achievement Silvi Listia Dewi	3524
13:45 – 14:00	How communication and decision making influence senior high school teachers' performance in East Aceh District Abidah	3570
14:00 – 14:15	Indonesian English: the qualities of the oral vowels Yunisrina Qismullah Yusuf	3896
14:15 – 14:30	Examining gender and grade level differences in mathematics anxiety Michelle Rivera Lacia	4007

Room SS2

Time : **October 15, 2020 / 13:30 – 14:30 WIB**
Session Chair (Moderator) : **Fitriyani, S.E., M.Sc.**

Time	Papers and Presenters	Paper Code
13:30 – 13:45	Study of the Effect of Zakat on Reducing Poverty in Districts/Cities in Aceh Province 2011-2018 Nilam Sari	3482
13:45 – 14:00	The role of place attachment as a mediator in the effect of destination attractiveness on environmentally responsible behavior in national tourism parks Syafuruddin Chan	3879
14:00 – 14:15	Analysis of self-quality sharia life insurance agents as sharia human resources competitiveness Novi Indriyani Sitepu	4008
14:15 – 14:30	The Gambia Government Social Networking Coordination-Preparedness and Response to CONVID-19 Mbassi Sanneh	3324

Room SS3

Time : **October 15, 2020 / 13:30 – 14:30 WIB**

Session Chair (Moderator) : **Saddam Rasanjani, S.IP. M.Sc**

Time	Papers and Presenters	Paper Code
13:30 – 13:45	The ethnoecology reflected in the story of the sacred myth of the Malay of Kampong Tua Nongsa Batam belief Tomi Arianto	3501
13:45 – 14:00	The utilization of big data in determining the communication strategy for government Ade Irma Stefi	3555
14:00 – 14:15	The legal certainty of the sale and purchase of land that has not been title transferred in Simpang Perak Jaya Village, Kerinci Kanan Sub-district, Siak Regency, Riau Province (A Case Study on Freehold) Fadhel Arjuna Adinda	3577
14:15 – 14:30	Impact of COVID-19 on economic activities and poverty threats in the asia-pacific region Risky Novialdi	4002

KS01

**Modelling and simulation in complex project management:
system dynamics approach to analyse maintenance and reliability**

Indra Gunawan

Adelaide Business School, Faculty of the Professions, the University of Adelaide

Abstract. In this presentation, the importance of modelling and simulation in managing complex projects will be discussed. Three modelling and simulation approaches including discrete event simulation, system dynamics and agent based modelling will be presented. The presentation will focus on system dynamics as a tool to simulate the dynamic interactions in complex systems. In system dynamics, the interactions between elements are modeled by causal loop diagrams (CLDs) and then described in stock and flow structures. Simulation models can be used to track the variation trends in future. As examples, systems maintenance and reliability with both binary and multi-state components are analysed using system dynamics.

IS01

Development Research in Mathematics Education in Indonesia: Some Milestones

Zulkardi

Study Program of Mathematics Education Faculty of Teacher Teaching and Education Universitas Sriwijaya, Indonesia

Abstract. This paper shares some milestones in mathematics education that have been developed in Indonesia since the last decade. Some of the innovative products have been started in Universitas Sriwijaya Palembang. For example, the International master program in collaboration between Universitas Sriwijaya and Utrecht University and the Mathematics Literacy Contest using PISA-like task for school students. Then, the development of an international conference on Design Research called SEA-DR d since 2013 in Unsri. Moreover, in 2016, the new doctorate program on RME in collaboration between Unsri and Utrecht University was founded. Finally, the international Journal called IndoMS-JME has been indexed in Scopus with Q2 ranked by ScimagoJR in collaboration between Unsri and Indonesian Mathematical Society since 2018. The characteristics of the developments and their roles related to the era Pandemic COVID-19 situation are discussed during the presentation.

Paper ID 3524

A Study of the Correlation Between Students' Creativity and Their Reading Achievement

¹Silvi Listia Dewi, ²Ismaniar Isa, and ³Sarah Savana

¹³Department of English Education, Faculty of Teacher Training and Education,
University of Almuslim, Bireuen 24267, Indonesia

²State Polytechnic Lhokseumawe, Lhokseumawe, 24375, Indonesia

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Abstract. Creativity is determined by how much knowledge is stored in the brain's memory. The higher the interest in reading students, the higher the creativity gained. This research is to find out the relationship between students' creativity and their reading achievement of English Department of Almuslim University. A number of 43 students who have passed critical reading course, are taken as sample. To measure the students' reading achievement in this research, the researchers collect the final result of students report card (KHS) in critical reading who have scores starting from B to A. In order to find out students' creativity scores, the researchers deliver questionnaires to the students who have got good score in their report card. To answer the research questionnaires, the students' responds are measured using Likert scale. Linear regression analysis is applied as analysis method. The result shows that the students' creativity has a positive and significant effect on their reading achievement. The coefficient of determination reached 49,7% which means it has moderate correlation.

Paper ID 3570

How communication and decision making influence senior high school teachers' performance in East Aceh district

¹*Abidah, ²Yusrizal,dan ³Nasir Usman

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²Department of Physics Education, FKIP, University of Syiah Kuala, Banda Aceh 23111, Indonesia;

³DMagister Administrasi Pendidikan , University of Syiah Kuala, Banda Aceh 23111, Indonesia;

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Abstract. This study aims to obtain an overview of the influence of communication and decision making on senior high school teacher performance at East Aceh District. This research was a survey research involving 10 principals, 20 vice principals, 30 teachers and 30 students. The variables in this study were independent variables, i.e., communication (X1) and decision making (X2), and the dependent variable i.e., teacher performance (Y). The results showed that there was a significant influence of communication and decision making on teachers' performance. Therefore, the Schools in East Aceh District should maintain and improve the current effective communication and decision making to increase teachers' performance.

Indonesian English: The qualities of the oral vowels

*Yunisrina Qismullah Yusuf, Zulfadli A. Aziz and Nurjannah

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Abstract. This research aims to acoustically analyze the English vowels produced by Indonesian learners. Short and long monophthong and diphthong English vowels were elicited and recorded from 20 non-native learners of English ages 19-20 years old studying at one of the colleges in Sigli, Aceh, Indonesia. The recordings were done in the soundproof room using a laptop and a head-worn microphone. The recorded data were then be converted into WAV files and input into PRAAT software. To analyze data, the formants of F1 and F2 in Hertz of each vowel sound were identified through the software. Then the value of these formants was converted into the Bark scale and further plotted on an F1 vs. F2 chart. Meanwhile, to measure the diphthong vowels, the rate of change (ROC) were measured to identify the trajectory of these vowels in the vowel space. The results revealed that the learners were unable to distinguish the monophthong vowel pairs such as [ɪ] and [i:], [ʊ] and [u:], [ɒ] and [ɑ], [æ] and [e]. This is presumed to be affected by the interference of their L1 (Acehnese) and L2 (Indonesian) into their L3 (English) since Indonesian and Acehnese have different vowel systems from English. Hence, this research has provided the qualities of the English vowels as produced by the Indonesian learners of the Acehnese ethnic that have not been done before, and the findings can be used for future research in language documentation, and linguistics and language learning, especially in phonetic studies of varieties of English.

Examining the gender and grade level differences in mathematics anxiety

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Abstract. Globally, mathematics has always been perceived as a challenging subject, thus students across schooling levels have disliked mathematics leading to the feeling of anxiety towards the subject. This study investigated students' mathematics anxiety levels across gender and grade (Grade 6 of elementary school and 4th Year of High School) in the south central part of the Philippines. The Fennema-Sherman Mathematics Anxiety Scale (FSMAS) was employed to examine the levels of mathematics anxiety of 6,672 elementary and secondary students from the seven school divisions in Region XII. The data were analysed by independent-sample t-test using SPSS 20. The results showed that there was a significant gender difference in terms of their anxiety towards mathematics. The results also indicated a significant difference on the anxiety levels between grade 6 and 4th Year of High School students, with grade 6 having the higher anxiety level compared to 4th year high school students. It is recommended to extend the study to different groups of students in different school levels using a more complex modelling and statistical methods.

The Gambia government social networking coordination-preparedness and response to COVID-19

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Abstract. The 95th National Situation Report revealed that The Gambia has 61 confirmed cases, 27 recoveries, and 3 died as of July 5, 2020. Cases are mostly imported with few local transfers. COVID-19 has now gone beyond health crisis which required a holistic coordination approach to curb the virus lessons learned from countries. For that reason, collaboration, and teamwork positively impacted countries due to the exceeding nature of their coping strategies, especially developing countries. The fight is an all-inclusive networking approach to curb the spread. The research objective is to map out government social networking and teamwork preparedness and responding to COVID-19. The methodology of the research is a qualitative approach through online literature reviewing newspapers, reports, and articles. The data was also harvested from the Gambia National COVID-19 Response Plan 2020 and COVID-19 outbreak situational report and Social Network Analysis (SNA) tool SocNetv 2.5 gives social contact between Ministry of Health and partners and analyse network structure for coordination. This mapping will help to identify and know partnership collaboration and interaction as a team working towards the same objectives and goal at all levels of preparedness and response. SNA becomes a tool for social network limelight showing the connection for coordination, interaction, communication on common interests, shared values, financial exchanges, and standard operating procedures against the implementation of COVID-19 programs. There will be the maximisation of duplication of resources and efforts and informed decisions on who is doing what, where, when, and how.

Paper ID 3482

Study of the effect of zakat on reducing poverty in districts/cities in Aceh Province 2011-2018

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Abstract. Poverty is a condition in which someone is unable to fulfill his primary needs. Poverty is caused by low human resources, lack of access to capital, and low levels of productivity of goods and services. One indicator of reducing the poverty rate can be done by optimizing zakat funds. The purpose of this study is to determine whether the existence of zakat funds can reduce poverty. This research's type of research is quantitative research using secondary data using panel data regression analysis. The results showed that zakat has a significant effect on the poverty rate. It can be seen in the t-test where the probability value is smaller than 0.05, and the zakat variable can explain the poverty variable by 99.44%, as seen in the coefficient of determination test. The results of this zakat can become a benchmark for district/city governments in making development policies so that people live in prosperity.

Paper ID 3879

The role of place attachment as a mediator in the effect of destination attractiveness on environmentally responsible behavior in national tourism parks

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Abstract. The purpose of this study is to test both direct and indirect hypotheses related to the determinant factors of Environmentally Responsible Behavior and place attachment as a mediating variable in the ecotourism industry. Apart from local communities who must support eco-tourism activities in order to create sustainable ecotourism development, tourists must also give appreciation for environmental conservation activities in natural tourist destinations through various pro-environmental behaviors, collectively known as environmentally responsible behavior (ERB). 180 tourists visiting Gunung Leuser Tourism Park were surveyed and made respondents. Structural Equation Modelling is used to determine the relationship between variables, with the study encompassing analyses of direct effects and mediating effects. Of the 3 direct influence hypotheses, three of them are proven to have a significant effect. Meanwhile, the indirect effect of destination attractiveness on ERB through place attachments is proven to be insignificant.

Paper ID 4008

Analysis of self-quality sharia life insurance agents as sharia human resources competitiveness

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Abstract. Islamic Insurance agents as sharia human resources are the spearhead of the insurance industry. Therefore, an analysis of the agent's self-quality needs to be known more deeply to improve the competitiveness of human resources in order to be able to compete in the international arena. This study uses a qualitative method using Analysis Networking Process (ANP). Primary research data were obtained through interviews with agency branch leaders, MDRT and AASI, secondary data were obtained from literature studies. The result show that quality as a solution to increasing the competitiveness of islamic insurance agents are: simultaneously there is an agreement among respondents regarding the priority order of Islamic insurance agents as much as 77% with the highest priority, it is spiritual quality; simultaneously there was an agreement among respondents regarding the priority order of alternative strategies for sharia insurance agents as much as 68% with the highest priority, it is training and education.

Paper ID 3501

The Ethnoecology reflected in the story of the sacred myth of the Malay Nongsa Batam belief

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Abstract. This study aims to explore the ethnoecology behind the myth of the Batam Malay community's belief in the tombs of kings, known as sacred. There are three sacred kings which conducted as the sources of research data in this article. The Bumbum sacred, the form of thus sacred was presented by a large tree that has been lived for centuries. It is said that this tree is a legacy of Habib Nuh, a shaman who was obedient as an intermediary for God to treat various diseases at that time. The sacred of Puak is a *zuriyat* of King Nong Isa who is famous as a wise and prudent king of Malay. This sacred shrine is closed and only the caretaker is allowed to visit. The sacred of *batu belah* is known as the crossing of the dragon which is a part of the Nongsa Island with *Putri* Island. Behind these sacred stories, there are various mysteries which the researchers then draw within the conceptual framework of ethnoecology. This study used a qualitative descriptive method with data collection techniques in the form of observation and in-depth interviews. Interviewed respondents were selected based on the interests of the researchers. The analysis is carried out in a critical analysis by applying the concepts of understanding oral literature and ethnoecological criticism. Ethnoecology became a bridge to understand ecological wisdom that is reflected in the behavior and daily life of the Malay community. The results showed that there are three important things as ethnoecological representations; (1) The ecological ties of forests and humans in the sacred of bumbum, (2) The reflection of the wise king of the sacred Puak Nongsa, (3) The sea as the central life of nature through the sacred of *Batu Belah* Pulau Putri. These three representations are supported by data found during in-depth interviews with respondents.

The utilization of big data in determining the communication strategy for government

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Abstract. Evolution in information and communication technology (ICT) occurs so fast and dynamically that it brings extraordinary changes in various industries and human life. Public relations also got an impact from a shifting and disruptions so that public relations was required to be more responsive and ready with the use of communication technology. Government public relations is also required to be aware of the importance of information and how to manage that information. Big data can be one of the technologies that are useful in helping government public relations communication strategies. From the findings of researchers on previous research, big data in public relations in the government is more used for media monitoring. Even if the implementation of the right Big data can be a strategic tool for government public relations in making decisions, policies and programs. This conceptual paper aims to explore other potentials of managing big data in government public relations in welcoming the ages of society 5.0.

Paper ID 3577

The legal certainty of the sale and purchase of land that has not been title transferred in Simpang Perak Jaya Village, Kerinci Kanan Sub-district, Siak Regency, Riau Province (A case study on Freehold Title Number 733)

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Abstract. The issuance of Laws Number 5 the Year 1960 on Basic Agrarian Law in the Republic of Indonesia brings a big change towards land regulations. To implement the Laws, Government regulation Number 24 the Year 1997 on Land Registration is issued. The occurrence of a set of this regulation is to provide legal protection towards the community on the rights and obligations towards their lands. One of the points that has been regulated is that the sale and purchase of land should be done through Land Deed Official (*PPAT*). *PPAT* will, therefore, register the land to the National Land Authority to carry out the land title transfer on the land certificate. However, in the reality of the situation, some people still carry out the sale and purchase of land without title transfer for the land certificate. Consequently, the people who have the freehold title and the name written on the land certificate is different. Consequently, the sale and purchase of land that does not comply with the Government Regulation Number 24 the Year 1997 on Land Registration have no legal certainty.

Paper ID4002

Impact of COVID-19 on economic activities and poverty threats in the Asia-Pacific region

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Abstract. This paper discusses the impact caused by a virus outbreak called Corona Virus Disease (COVID-19). The virus initially appeared in Wuhan-China in late 2019, then spread throughout the world, including the Asia-Pacific Region (APR). COVID-19 is believed to have damaged the health and global economy, unlike the crisis that was caused by many previous disruptions, the impact caused by COVID-19 is wider and bigger. There are many economic sectors paralyzed and suffer losses, such as production and trade, then export-import cooperation which has become a dependency between countries is also hampered due to the rapid spread of this pandemic. Then, the closure of transportation access and the suggestion to stay at home makes the tourism sector sluggish. Meanwhile, another effect of this pandemic is the emergence of new poor groups due to the rise in layoffs. This study uses qualitative research methods by searching for theoretical references relevant to cases or problems found in various works of literature, mainly scientific journals, books, reports, actual and trusted news on the internet. This study aims to explore the potential of COVID-19 that not only threaten health, but also social, political, and economic. From the analysis, it was concluded that the COVID-19 can inhibit all global socio-economic activities that threaten the success of realizing Sustainable Development Goals (SDGs), but on the other hand, this pandemic can also be a momentum for a more sustainable life order.

