International Journal of Scientific & Technology Research

0.2
2019 CiteScore
10th percentile
Powered by **Scopus**

Scopus coverage: Nov 2018 to May 2020

CALL FOR PAPERS

Call For Research Papers
Online Submission
Review Process
Research Paper Status

AUTHORS

Authors GuideLines
Publication Ethics and Malpractice Statement
Publication Charges
Publication Certificate
Publication Indexing
How to publish research paper
FAQs

DOWNLOADS

IJSTR Template
Registration Form
Copyright Transfer

CONTACT

Contact Us
Privacy Policy
Terms & Conditions
Cancellation Policy
Disclaimer
Sitemap

Editorial Board - IJSTR

Dr. J.N. Swaminathan (M.Tech, Ph.D)

Editor-in-chief
Professor & Head
Signal & Systems and Data Transformation
QIS College of Engineering and Technology Ongole
Andhra Pradesh, India - 523272.
Email: chiefeditor@ijstr.org

M.A. Andrzej Klimczuk (Poland)
Warsaw School of Economics, Collegium of Socio-Economics Ph.D. candidate

Dr. S.R.Boselin Prabhu (India)
VSB College of Engineering Technical Campus, Coimbatore

Dr. Rajeev Vats (India)
The University of Dodoma,Tanzania

Shatrunjai Pratap Singh (USA)
Senior Data Scientist Consultant, Advanced Analytics, John Hancock Insurance, Boston, MA

Dr. C. Jaya Subba Reddy (India)
Senior Assistant Professor, Dept. of Mathematics, S. V. University,Tirupati-517502, Andhra Pradesh, India

Dr. Hiren C. Mandalia (India)
Scientist In-charge (HOD) at Central Laboratory, Ahmedabad Municipal Corporation (AMC)

Naveen Mani Tripathi (India)
Research Scientist in Ben-Gurion University of The Negev, Israel

Dr. YariFard Rasool (China)
Rasool YariFard, PhD. in Accounting, Wuhan University of Technology, Wuhan, China.

Egbuna Chukwuebuka (Nigeria)
Quality Control Analyst; New Divine Favour Pharmaceutical Industry Limited, Akuzor, Nkpor, Anambra State

Indra Narayan Shrestha (Nepal)
Project Manager, Energize Nepal, School of Engineering, Kathmandu University(KU), Nepal

Dr. Mohammad Israr (India)
Professor, Department of Mechanical Engineering, Sur University College Sur, Sultanate of Oman

Dr. Rey S. Guevarra (Muntinlupa)
Professional Diploma leading to Doctor of Philosophy in Mathematics Education; Centro Escolar University

Dr. Sukumar Senthikumar (India)

Ameenulla J Ali (India)
PhD in Wireless

Sakshee Gupta (India)
PhD (Medical

Contact Us

International Journal of Scientific and Technology...

Q3 Engineering (miscellaneous)
best quartile

SJR 2019 0.12
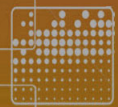
powered by scimagojr.com

CURRENT PUBLICATIONS

ISSN 2277-8616

ISSN 2277-8616
International Journal of Scientific & Technology Research
e-publication, Volume 10, Issue 2
February 2021 Edition
ISSN 2277-8616
IJSTR
www.ijstr.org

March 2021 Edition (in-progress)
February 2021 Edition **NEW**
January 2021 Edition

2020 Edition +
2019 Edition +
2018 Edition +
2017 Edition +
2016 Edition +

Post Doctoral Researcher, Advanced Education Center of Jeonbuk for Electronics and Information Technology-BK21, Center for Advanced Image and Information Technology, Division of Computer Science and Engineering, Graduate School of Electronics and Information Engineering, Chon Buk National University, 664-14, 1Ga, Deok Jin-Dong, Jeonju, Chon Buk, 561-756, South Korea.

Communications (Electrical & Electronics Engineering) (Expected Dec-2015) Queen's University of Belfast, United Kingdom

Microbiology): From Deptt. Of Microbiology, SMS Medical college, Jaipur

2015 Edition +

2014 Edition +

2013 Edition +

2012 Edition +

Dr. Haijian Shi (USA)
Ph.D., P.E. 300 Lakeside Drive, Ste 220 Oakland, CA 94612

Dr. Chandrashekhar Joshi (India)
Ph.D. (Management), M. Phil, (1st class) , M.Com.(1st class)

Shadab Adam Pattekari (India)
Ph.D,MTech [CSE], B.E I.T ASSISTANT PROFESOR IN CSE DEPT. Tatyasaheb Kore Institute Of Engineering & Technology

Kamal Kant Hiran (Ghana)
Ph.D*, M.Tech. Gold Medalist, B.E

M. Vasim Babu (India)
M.Vasim Babu M.E(Ph.D) AP/ECE,LMEC

J. Deny (India)
M.Tech in Digital Communication and Network Engineering in Kalasalingam University, Krishnankoil

R. Ranjithkumar (India)
M.Sc.,(Ph.D), Research Scholar, Department of Biotechnology, Dr.N.G.P. Arts and Science College, Coimbatore-48, Tamilnadu

Dr. Ajay Gupta (India)
M.Sc., Ph.D, NET (CSIR) NET-ARS (A.S.R.B)

Dr Palanivel Sathishkumar (Malaysia)
M.Sc., M.Phil., Ph.D., Researcher: Institute of Environmental and Water Resource Management, Universiti Teknologi Malaysia, Johor Bahru, Malaysia

Mallikarjun C.Sarsamba (India)
M. Tech. in Power Electronics, BE in Electronics & Communication

Dr. Faizan Zaffar Kashoo (India)
Lecturer, College Applied Medical Sciences, Department Of Physical Therapy and Health Rehabilitation, Al-Majma�ah University Kingdom Of Saudi Arabia.

Kalipindi Murali (India)
K.Murali M.Tech.,M.Sc.,IAENG Asst Professor and Incharge HOD Dept of ECE VITW

Digital Repository Universitas Jember

Lu, Wuhan 430074, Hubei Province, China PRC	Research Institute (EPTRI), Pvt. Ltd., Nepal	Canterbury, New Zealand
Dr.Laith Ahmed Najam (Iraq) B.Sc. Physics (1987), M.Sc. in Nuclear Physics (1990), Ph.D. in Nuclear Physics (2006) Mosul Univ.-IRAQ	**Mr. G. Aswan Kumar (India)** B.E., M.Tech., MIEEE., MASEE, Dept. of Electronics & Communication Engineering, Baba Institute of Technology and Sciences, Visakhapatnam-48, Andhra Pradesh, India	**Prof. Piyush Kumar Pareek (India)** B.E,M.Tech,MISTE, (Ph.D)
Dr. kulkarni Sunil Jayant (India) Asst. Professor Datta Meghe College of Engg., Airoli, Navi Mumbai	**Dr Anupam Krishna (India)** Asst. Prof., in Manipal University, TAPMI school of Business, Jaipur	**Kundan Lal Verma (India)** Asst. BDM, Professional Imaging Inc., New Delhi; Founder, Ujjawal Research Group; Member, NASA MATB Researchers Group.
Mohammad Sadegh Mirzaei (Iran) Asst Prof. University of Applied Science and Technology, Fars, Iran	**Dr. N R Birasal (India)** Associate Professor, Zoology Department, KLE Society's G H College	**Y. Ravindra Reddy (India)** Associate Professor, Teegala Ram Reddy College of Pharmacy, Meerpet, Saroornagar, Hyderabad.
Dr. Sonam Mittal (India) Associate Professor in the Dept of Computer Science & Information Technology in BK Birla Institute of Engineering & Technology, Pilani	**Prof. Lalchand Dalal (India)** Associate Professor in Botany. M.Sc. (Bot), M.Phil(Bot), Ph.D(Botany. Title-Biofertilizers-Macronutrients and Micronutrients).	**Dr. Ashish Kr. Luhach (India)** Associate Professor at Lovely Professional University, Jalandhar, Punjab. India
Dr. R. SathishKumar (India) Associate Professor - Electronics and Communication Engineering, Sri Venkateswara College of Engineering	**Dr. Meenu Pandey (India)** Associate Professor (Communication Skills) Lakshmi Narain College of Technology, Bhopal	**Dr. Fateh Mebarek-Oudina (Algeria)** Assoc. Prof at Skikda University
S Nagakishore Bhavanam (India) Assistant Professor, University College of Engineering & Technology,	**Rajesh Duvvuru (India)** Assistant Professor, Dept. of C.S.E, National Institute Of Technology, Jamshedpur	**Kavin Rajagopal (India)** ASSISTANT PROFESSOR(EEE DEPT) EXCEL COLLEGE OF ENGINEERING & TECHNOLOGY KOMARAPALAYAM

Digital Repository Universitas Jember

If you would like to be a part of our Editorial Board then please send us your resume at editorialboard@ijstr.org

International Journal of Scientific & Technology Research

Home   **About Us**   **Scope**   **Editorial Board**   **Blog/Latest News**   **Contact Us**

0.2
2019 CiteScore
10th percentile
Powered by **Scopus**

Scopus coverage: Nov 2018 to May 2020

CALL FOR PAPERS
Call For Research Papers
Online Submission
Review Process
Research Paper Status

AUTHORS
Authors GuideLines
Publication Ethics and Malpractice Statement
Publication Charges
Publication Certificate
Publication Indexing
How to publish research paper
FAQs

DOWNLOADS
IJSTR Template
Registration Form
Copyright Transfer

CONTACT
Contact Us
Privacy Policy
Terms & Conditions
Cancellation Policy
Disclaimer
Sitemap

IJSTR Volume 9 - Issue 3, March 2020 Edition - ISSN 2277-8616

All listed papers are published after full consent of respective author or co-author(s).
For any discussion on research subject or research matter, the reader should directly contact to undersigned authors.

IJSTR Terms and Conditions

Current Trends In E-Learning
Raj Kumar, Dr. Shaveta Bhatia

E-learning is the buzzword of today's era and a large number of e-learning resources are available in online and offline mode. However, to derive useful pattern from this abundant pool of e-learning resources is a very tedious task. Various data mining approach can be used to generate interesting patterns from this enormous repository. The data analytics helps in analyzing the information access pattern of the users. The information access pattern can be helpful in identifying the learning behavior traits of an individual. Moreover, machine learning along with data mining has opened up new avenues. The combination of data analytics and machine learning may be used to generate targeted recommendations.

[View Full Paper]   **[Download]** **[References]**   1-3

Precedent Behavioral Extraction System For Personalization Recommendation
Mahima

Hosting a compilation of billions of videos, YouTube presents one of the leading scale and most precious videos personalization recommendation system in existence. The recommendation system works on to personalized set of videos to users based on

Contact Us

International Journal of Scientific and Technology…

Q3 Engineering (miscellaneous)
best quartile

SJR 2019 **0.12**
powered by scimagojr.com

CURRENT PUBLICATIONS
ISSN 2277-8616

ISSN 2277-8616
International Journal of Scientific & Technology Research
e-publication, Volume 10, Issue 2
February 2021 Edition
ISSN 2277-8616
IJSTR www.ijstr.org

March 2021 Edition (in-progress)
February 2021 Edition **NEW**
January 2021 Edition
2020 Edition +
2019 Edition +
2018 Edition +
2017 Edition +
2016 Edition +

their past actions on the website. In this paper, we highlight the some of the major challenges that the system faces and how to address them. To tackle these issues, we have proposed a Precedent Behavioral Extraction Module (PBEM), which also deals with large-scale heterogeneous information to fulfill the requirements of the potential users. PBEM approach especially focus on the remarkable performance enhancements brought by machine learning. PBEM is a new approach as it works on discovering the precise web browsing behavior from uncertain keywords and defines the semantic measurement with user recommendation of keywords within the user query

[View Full Paper]   [Download] [References]   **4-9**

Morphological Variation In Pollen Grains Of Philippine Hibiscus Rosa-Sinensis Hybrids

Divine Joy A. Mauhay, Larry V. Padilla, Fe Corazon A. Jacinto, Eileen Z. Vitug

Hybridization of both plants and animals has innumerably benefitted man. An example of which is the numerous hybrids of Hibiscus rosa-sinensis which are primarily used for aesthetic purposes because of their colourful flowers. Phenotypic variations can already be observed in various parts of H.rosa-sinensis because of hybridization; hence, it is likely that modifications are occurring on microscopic structures such as the pollen. Through time, such variations could change the frequencies of alleles in the gene pool and could possibly lead to microevolution of the species. This study focused on the determination of variations in pollen grain morphology of ten (10) selected H. rosa-sinensis hybrids from the Institute of Plant Breeding of the University of the Philippines-Los Banos, specifically in terms of pollen aperture, size, shape, length of spine and sculpturing. The pollen shape, type of aperture and sculpturing were determined qualitatively. One-way ANOVA was employed if there is significant difference among the pollen of the hybrids in terms of the said quantitative characters. Pollen shape variation was determined through Elliptic Fourier Coefficient Analysis. Results showed that all hybrids have pantoporate type of aperture, echinate type of sculpturing, and spheroidal shape. Among the characters observed, variation was noted in their pollen size and spine length. Pollen size ranges from large to very large and long to very long spine length. Majority of the hybrids observed (7 out of 10) have very large pollen size and long pollen spines. One (1) hybrid has very large pollen size and short spines while

[View Full Paper]   [Download]   1520-
[References]   1523

A Study On Implementing Solar Based Home Energy Storage Systems For Rural India.

Sanoop, Dr. Tamil

Solar energy is available everywhere making it user friendly to harness it in almost every place like cities, villages and farms. This paper depicts the improvement and sending of creative Solar oriented power based frameworks for use in rural groups of India. On-going and arranged solar based power extends in India are constantly gone for creating solar plants for framework applications. The proposed framework advancement depends on disseminated arrangement approach. This approach utilizes sunlight based power in little units to fulfill a specific requirement for a town, similar to a home in a town, on the homestead, or potentially an individual town inhabitant. Systems outlines consolidate practical, secluded, rough, long life, simple to keep up, and helpful to utilize structures. Further, the frameworks are half breed permitting these to work with coordinate electric power and in addition sunlight based energy. The cases of advances that need sun based power for country regions incorporate cell phones, home machines, cultivate executes, capacity of vegetables and natural product, squander administration, and vehicles for human, creature, and yield transport. The procedure proposed for distinguishing the assembling configuration is an iterative one. In other words that at first the model units are sent in towns to get input From Clients and after that the Outline is Altered and Reused. The Final Product of this Exertion is the Distinguishing Proof of the Last Outline and Assembling Process

[View Full Paper]   [Download]   1524-
[References]   1528

Etnomathematics On Equipment Of Kebo-Keboan Alasmalang Traditional Ceremony

Erfan Yudianto, Reza Ambarwati, Lela Nur Safrida, Toto Bara Setiawan, Ika Arum Cahyani

Ethnomatematics is a habit and customs in a community group and there is a mathematical concept without being realized by the community. This research was conducted in Alasmalang village, especially Krajan

Singojuruh Banyuwangi hamlet. The purpose of this study was described about ethnomatematics of the Traditional Ceremony of Kebo-Keboan Alasmalang with the subject matter of congruence and similarity. This research was belonging of qualitative research with an ethnographic approach. The object of this research is all the equipment that must be available for the implementation of the ceremony. Data sources in this research are the head of Kebo-Keboan Traditional Institue and buldrah. There are 3 methods were used to collecting data, observation, documentation and interviews. The results of data's collection will be analyzed and presented descriptively. The results of this study showed that there are mathematical concepts in the form of point and line, angle, two dimentional figure, congruence and similarity, three dimentional figure, and reflection.

[View Full Paper] [Download] [References]

1529-1533

Spectral Analysis Of Electrogastrogram

R.Chandrasekaran, T.R.Thamizhvani, A.Josephin Arockia Dhivya, R.J.Hemalatha

Gastroparesis is a condition that affects the normal motility of muscle in the stomach and is commonly called as paralysis of stomach. Electrogastrography is the technique for measuring electrical activity of the stomach. The Electrogastrography is also used to measure the gastric mobility and various stomach disorders like tachy-gastria, brady-gastria, dyspepsia, peptic ulcer, gastric tumor etc. Electrogastro-gram is the graphical representation of the Electrogastrography. The Electrogastrography procedure is recommended by the physician to diagnose the dis orders in the stomach. Electrogastrography procedure is taken generally under two conditions: Fasting condition and post prandial condition. This procedure is followed strictly to measure the gastric activity and gastric emptying test. The food is propelled into the stomach and the pacemaker of the stomach fails to contract the muscles of stomach that leads to gastroparesis condition. The diabetic patients often get into the gastroparesis condition. This remains as a major factor; stomach motility is slowed down. In this paper, data acquisition system for acquiring multichannel electrogastrogram is developed and the gastric signal is acquired and analysed using MATLAB. Through the spectral analysis of gastric slow-wave, the gastroparesis condition is diagnosed. The MEGG-Multichannel Channel Electrogastrogram signal is acquired in two states: Fasting state and Postprandial state.

recommendations are offered to all related parties.

[View Full Paper]   [Download]   7260-
[References]   7265

Innovative Advancement In Drone Technology For Water Sample Collections - A Review

Himanshu Kumbhare , Sagar Shelare

Over the decade, advancement and improvement in drone innovation have been increses rapidly. Drones are retrieved in various significant applications in India using their payloads like the development of drone-based technologies in agriculture and medical sectors. Like the future progressions, the foremost unique is the possible fortune to regain chemical, physical, plus genetic information of oceanic situations like gathering water samples from open water bodies. In this paper, the advancement of drones having the capacity like the drone-based sampling water payloads to trap water from water bodies has been reviewed. Still, drone-based water sampling has several critical limits considering the limited amount of water sample and a low sampling rate. Of critical importance, the apparent conflicts are seen in water parameters got utilising drone-based and conventional water sampling methods. Thus, water samples got utilising drones may not give a degree of quality and exactness to address the issues of water sampling programs. Arrangements planned for tending to these boundaries of drones to carry water sampling including modified drones for higher payload capability, simplifying an arrest of more significant amounts of water, arranging fieldwork for activity past observable visual sight, including combining sustainable analytical investigation designs. Also, complete cost investigations are needed if drones would appearing in the economic profit underwater sampling, and it acts as an economically efficient promoting means if these types of constraints are spouted in the coming years.

[View Full Paper]   [Download]   7266-
[References]   7269

Optimization Of Battery - Ultracapacitor For Electrically Operated Vehicle For Urban Driving Cycle In India

V L Kokate, R M Holmukhe, D S Bankar, P B Karandikar, Poorva Aparaj

Depleting fossil fuels will be a major challenge in front of coming generation. This is going to hit the transportation sector heavily. Compressed air vehicles and electric vehicles are seen as viable solution for future transportation. Electric vehicle system can be implemented from small vehicle to very large transportation system like train or aeroplane. Use of ultracapacitor is inevitable in most of the electrically operated vehicle as it is the only way to supply pulse current requirement of electric motor. Electrical energy storage is as persistent problem in electric vehicle. Battery has its limitations. Use of battery-ultracapacitor combination is most viable option. Optimization of battery- ultracapacitor rating is addressed in this paper.

[View Full Paper]   [Download]   7270-
[References]   7274

Radiometric Measurement Of Iodine-131 Activity In Liquid Effluent From A Nigerian Hospital

Nasir Badamasi Muhammad, Abiodun Ayodeji, Ngbede Junior Awodi, Justina Onyinyechukwu Adibeli, Mathew Ademola Jayeola

This work measures the radiological content of liquid effluent discharged from a Nigerian Hospital that has a Department of Nuclear Medicine where diagnostic and therapeutic activities were carried out using medical radioisotopes. The main focus is to examine the management of radioactive biological waste from patients after undergoing radio-iodine therapy. This study was carried out for a period of 5 days. Samples of liquid effluent at the point of final discharge from the Hospital into the Municipal sewer system were collected on daily basis, within the hour after radioactive urine waste was discharged into the hospital sewer system. A G.M Tube detector was used in measuring the mean dose rates directly from the liquid effluent samples. The dose rates measured from the liquid effluent samples range from 0.13 to 0.20µSv/hr which was within similar range as the mean dose rate (0.20µSv/hr) from natural background radiation measured prior to the study at locations upstream of the hospital. Corresponding activity concentrations of Iodine-131 were evaluated using empirical correlations. The values of activity concentration ranged from 0.0028 to 0.0043 Bq/L. This showed that the activity concentration of Iodine-131 contained in the liquid effluent discharged was very low when compared with the threshold of 0.1 Bq/L. This is adduced to very high dilution (99.91%) of Iodine-131 within the hospital sewer before being discharged into the Municipal sewer system. Radiation hazard indices were also

evaluated to determine the radiological burden of the effluent discharge on the surrounding. Annual Effective Dose Equivalent and Excess Life Cancer Risk values of 15.94 - 24.53 µSv/yr and 0.14×10^{-3} - 0.20×10^{-3} were within the acceptable standard Thresholds of 70 µSv/yr and 0.29×10^{-3} respectively. The low values of radiological properties measured for Iodine-131 in the liquid effluent discharged from the Nigerian Hospital are within acceptable clearance level for safe final discharge.

[View Full Paper]   [Download]   [References]

7275-7283
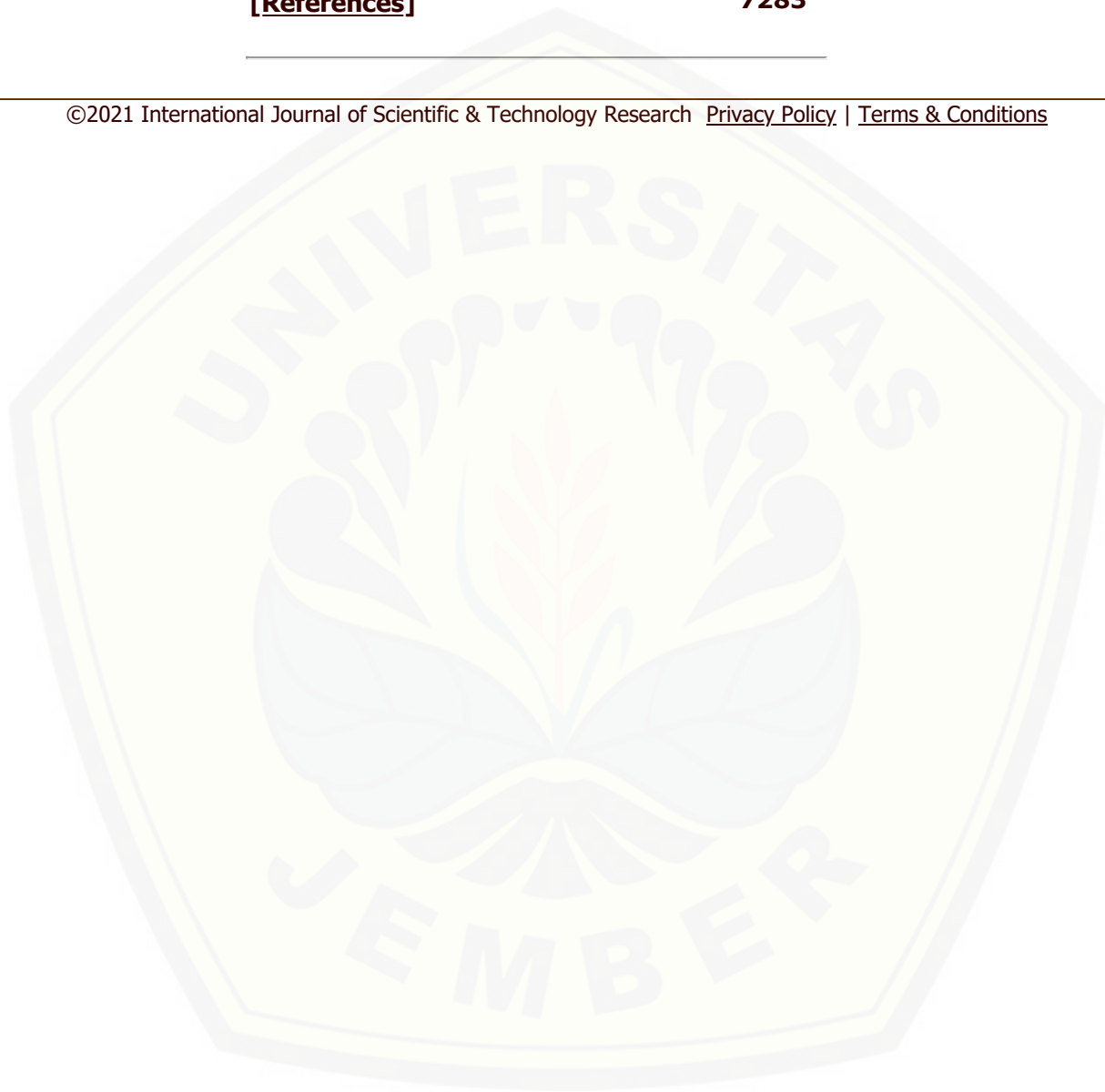
Etnomathematics On Equipment Of Kebo-Keboan Alasmalang Traditional Ceremony

Erfan Yudianto, Reza Ambarwati, Lela Nur Safrida, Toto Bara Setiawan, Ika Arum Cahyani

Abstract—Ethnomatematics is a habit and customs in a community group and there is a mathematical concept without being realized by the community. This research was conducted in Alasmalang village, especially Krajan Singojuruh Banyuwangi hamlet. The purpose of this study was described about ethnomatematics of the Traditional Ceremony of Kebo-Keboan Alasmalang with the subject matter of congruence and similarity. This research was belonging of qualitative research with an ethnographic approach. The object of this research is all the equipment that must be available for the implementation of the ceremony. Data sources in this research are the head of Kebo-Keboan Traditional Institue and buldrah. There are 3 methods were used to collecting data, observation, documentation and interviews. The results of data's collection will be analyzed and presented descriptively. The results of this study showed that there are mathematical concepts in the form of point and line, angle, two dimentional figure, congruence and similarity, three dimentional figure, and reflection.

Index Terms— Ethnomathematics, Kebo-Keboan Traditional Ceremony, Traditional Ceremony, Alasmalang

————————————— ◆ —————————————

1 INTRODUCTION

MATHEMATICS is considered as difficult subject and unusual. Neither geometry is one of the topics on learning mathematics which is considered difficult by most of students [1]–[5]. This unchanging assumption encourages educators to work harder to finding some interesting ways in learning mathematics specifically geometry[6]–[9]. One of the newest recently used is related with the culture. Learning mathematics with the culture will definitely increase interest and changing the way of students to learn about mathematics has nothing connection with day life and culture. Mathematical elements in a culture are called ethnomatematics. Ethnomatematics are formed because of the relationship between types of socio-cultural groups with mathematics or mathematical expressions in socio-cultural groups [2]–[4], [10]. Ethnomatematics is practiced by certain cultural groups, workers, children from certain classes of society, professional classes, and others [11]–[15]. Ethnomatematics based on learning is considered more effective and makes mathematics more real than school mathematics learning [13][11]. Learning mathematics must have an open mind and not be closed to concepts found in school academic mathematics. freedom of thought from students is needed to see mathematics from all sides and help them in the process of understanding mathematics [16].The culture that can be used is very diverse, one of which is the Traditional Ceremony of Kebo-Keboan Alasmalang, Banyuwangi.

- *Erfan Yudianto is a lecturer in Mathematics Education Department of University of Jember, Jember, Indonesia.*
  E-mail: erfanyudi@unej.ac.id
- *Reza Ambarwati a lecturer in Mathematics Education Department of University of Jember, Jember, Indonesia.*
  E-mail: reza.ambarwati@unej.ac.id
- *Lela Nur Safrida is a lecturer in Mathematics Education Department of University of Jember, Jember, Indonesia.*
  E-mail: lelanurs@unej.ac.id
- *Toto Bara Setiawan is a lecturer in Mathematics Education Department of University of Jember, Jember, Indonesia.*
  E-mail: totobara.fkip@unej.ac.id
- *Ika Arum Cahyani is a student in Mathematics Education Department of University of Jember, Jember, Indonesia.*
  E-mail:ikaarum@gmail.com

The Traditional Ceremony of Kebo-Keboan Alasmalang aims to clean the village and give thanks for the harvest and safety of the village to avoid all evil and be given peace, comfort in life [8][9]. Based on what has been described, the research on ethnomatematics in the traditional ceremony of kebo-keboan in the problem of geometry.

2 METHOD

The purpose of this study is to describe ethnomematics in traditional kebo-keboan ceremonies and their manufacturing activities. This research is a qualitative research with ethnographic approach. The ethnographic research approach is an activity that describes a culture, whose main purpose is to understand life view from the perspective of the native population [19]. The research area is Krajan Hamlet, Alasmalang Village, Singojuruh District, Banyuwangi Regency. Data collection will be done by 3 methods, namely observation, interviews and documentation. Observations are made by 3 observers and interviews will be conducted on 2 speakers. The guest speaker was the Chairperson of the Kebo-Keboan Customary Institute Alasmalang and Buldrah (leader of the Kebo-keboan traditional ceremony). The research instrument used consisted of observation guidelines and interview guidelines which were validated by 2 validators, namely 2 Mathematics Education lecturers, Faculty of Teacher Training and Education, University of Jember. The guidelines are declared valid if $1,5 \leq V_a \leq 2$ is obtained, and based on the validation conducted, the guidelines for observation and interviews are used valid with the results of $V_a = 2$ on a scale of $1 \leq V_a \leq 2$.

3 RESULTS AND DISCUSSION

The study was conducted on 10 objects which are the main devices of the Kebo-Kebo Alasmalang Traditional Ceremony. These 10 objects include: palawija gates, puddles, plants mountain, cones, Dewi Sri chariots, singkal, teter, keboan horns, keboan necklaces (kluthuk), and farmer's hats. This is an explanation of ethnomatematics available in the Alasmalang traditional ceremony

1. Palawija Gate

Fig. 1. Example of Palawija Gate

Palawija Gate is built on four corners of the road or intersection in the hamlet of Krajan. 11 palawija gates are made by each RT. Because RT is only 11 and if 11 gates are built in four corners of the hamlet, they will have different amounts, so the committee adds 1 gate to be built. 12 gates were built each of 3 for each direction.
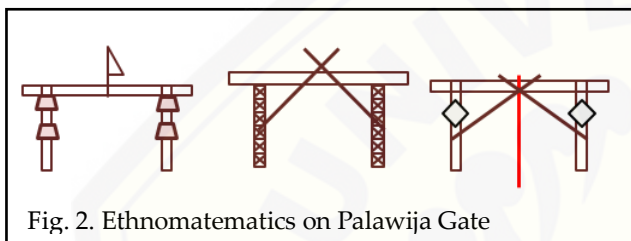

Fig. 2. Ethnomatematics on Palawija Gate

Three examples of palawija arches have ornaments whose shapes are two-dimensional geometric shapes, including trapezoidal, rhombic, square. On the other hand, the Alasmalang village community also emphasized the beauty and neatness in its manufacture so as to produce ornaments that have the same size and shape on each side.

2. Kubangan Puddles

The function of the puddle is as a place to plow the fields which is located in front of the Kebo-keboan cultural home (RBK). Stagnant water is made with the size of rice fields commonly used by the Alasmalang community. A puddle of
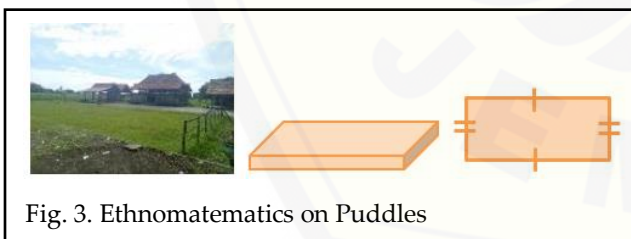

Fig. 3. Ethnomatematics on Puddles

water forms a flat wall with a height of about an adult calf.

3. Plants Mountain

Mountain yields are symbolized by village alms carried out by the Alasmalang Village Community. This will be sent with vegetables harvested by farmers and will be carried around the village. The mountains of agricultural produce form a cone with the center flanked by 2 bamboo poles used to carry the mountains around the village. In this section there are concepts of flattening, circles, and cones. Uniquely, people use poles and form a square in the middle to flank mountains.

The choice of a square shape is believed to be because if the square circle and the middle of the cone will not be shaken when carried around. With this, people have done mathematical thinking in which circles have the same diameter
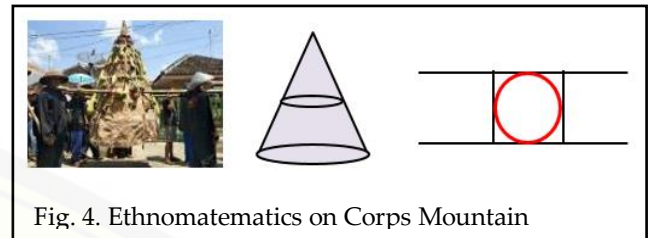

Fig. 4. Ethnomatematics on Corps Mountain

so that the shape that is best suited for flanking a circle is a square.

4. Cones

The traditional Kebo-keboan ceremony is preceded by safety before H. The next day, the activity will be opened at the junction of the hamlet where the opening is done by presenting cone cones that are equipped with pecel pithik with other side dishes. Stumps are made according to guests who come in cone shape. One cone uses 1-1.5 kg of rice with a capacity of 4-7 people.
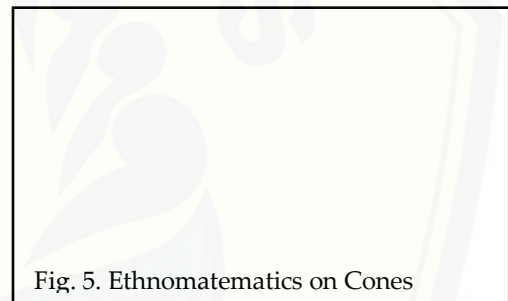

Fig. 5. Ethnomatematics on Cones

5. Chariots of Dewi Sri

Dewi Sri is a symbol of rice planted so that it is fertile and grows well. Dewi Sri will be taken by train around the village and will end up in front of the RBK to carry out the procession of Ngurit. The train is made to have a rectangular frame with a trapezoid-shaped front. Dewi Sri Chariots uses a roof made of woven palm leaves and has a curved shape. Every year, the shape of the roof will be modified by the

Alasmlang community. Aside from using a flat structure as a frame, this kencana train also has a concept of conformity in a rectangular-shaped framework with a wooden divider at the edges.
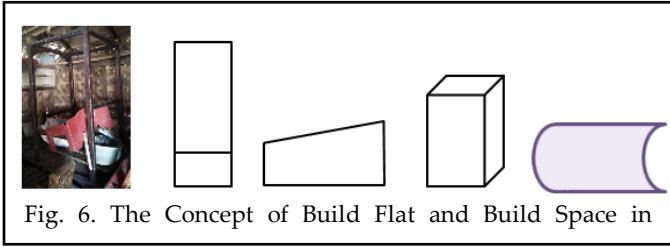
Fig. 6. The Concept of Build Flat and Build Space in

Fig.7.Conviction in the Chariots

6. Singkal

Singkal is a tool used to plow a field and is usually used with a partner who is used to pull singkal in the process of plowing. Singkal has a chart called simpe. Simpe functions as a soil penetrator during the process of plowing and the Alasmalang community makes its shape have a sharp angle. This is because the simpe function itself is used through the ground so sharp objects are needed to penetrate it. In addition, Singkal has a pair whose ornaments use flat shapes such as polygons and trapezoid. This ornament has the same size and shape with each other and on the left and right side has an arrangement such as reflection from each part.

Fig. 8. Concept of Angles on Simpe

Fig. 9. Ethnomatematics in Singkal

7. Teter

Teter becomes an inseparable tool from singkal. Teter is useful for leveling land that has been plowed using singkal. Teter has an elongated hexagon shape which makes it easy to equalize
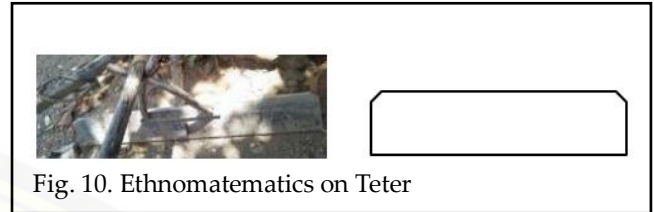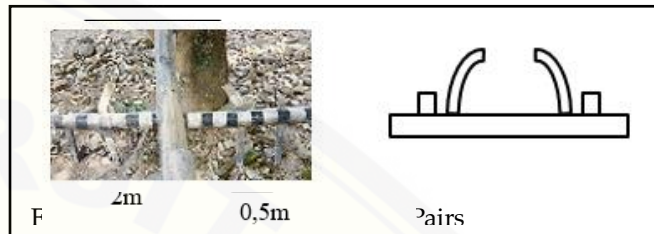

Fig. 10. Ethnomatematics on Teter

F   2m   0,5m   Pairs

due to a wider surface so that the time used is also more efficient. In addition, the teter also has a pair whose ornament is a quadrilateral and a curved plane. The addition of this ornament is to show the value of art with a beauty and neatness so that people make it with the same shape and size between the two and arranged like a reflection on the left and right.

8. Horn of Keboan

The keboan horn can be said to be the main device in the traditional kebo-keboan ceremony. The keboan horn is used to indicate that it is the keboan that characterizes the agricultural process in the village of Alasmalang. Keboan horns are made by the perpetrators using roots, rattan, and wood which are shaped to resemble horns with the same size between the left and

Fig. 12. Ethnomatematics on the Horn of Keboan

right. This keboan horn is equipped with ears made from rubber slipper and carpet made by piling up materials and cutting them all at once to produce ears of the same size.

9. Necklace of Keboan

Another device that is characteristic of keboan is the keboan

Fig. 13. Ethnomatematics on Keboan Necklaces
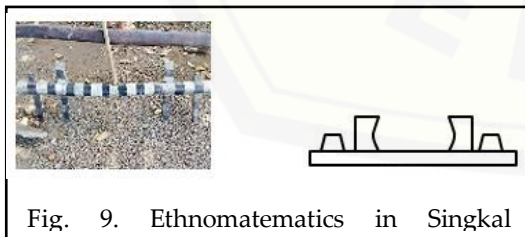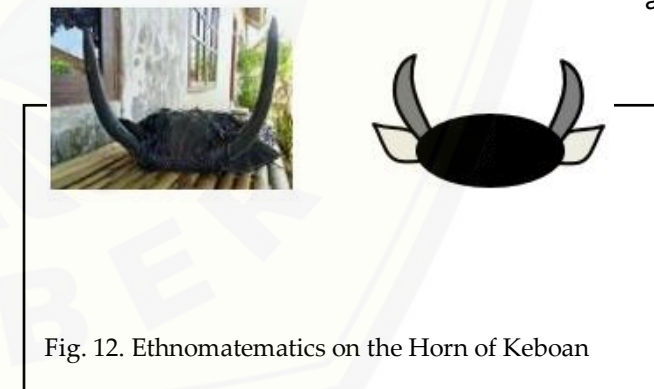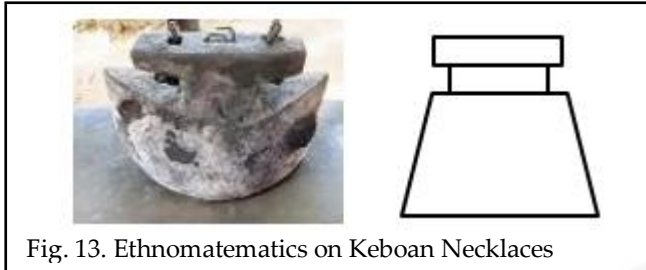
necklace. This necklace will sound when shaken by the perpetrators and is considered as a way of communication between buffalo with their children and buffalo with farmers. Keboan necklaces made of jackfruit wood carved to form a cavity like the leaves at the bottom. Then in the middle a hole is made to attach two small logs that function to make the sound of a keboan necklace. In this sculpting process, the community prioritizes the appearance of the left and right of the same shape and size that are sought when directed into mathematics there will be a concept of reflection on the keboan necklace.

10. Farmer's Hat
Farmers as perpetrators who control keboan when doing piracy sawh. Farmers wear conical hats or caping with their respective sizes. Inside the caping are half the balls used for use by farmers.
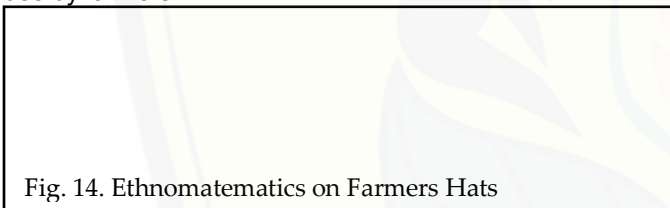

Fig. 14. Ethnomatematics on Farmers Hats

Ethnomatematics is mathematics that arises and develops in a group of people and is in accordance with the local culture which functions as a center of learning and teaching [20]. According to Orey and Rosa the process of learning mathematics will run well when a teacher can link the learning process with social and cultural interaction through dialogue, language, symbolic meaning in mathematics [20].Based on the results above, in accordance with relevant research related to ethnomatematics, the results of research conducted by [21] said that the shape and engraving of the Mandara Giri Semeru Agung Temple have a mathematical element. Based on another research by [22], it can be found that ethnomatematics can also be found in Islamic nuances of art, namely in the form of tambourines. Other research on ethnomatematics is by [23] which states that the mathematics can be used as an interesting learning material. Not only introducing mathematical concepts but also by introducing culture to students. This research produces mathematical concepts of geometry in the form of points and lines, angles,

flat shapes, concordance and congruence, space constructions, and reflections on 10 devices used in the implementation of the Alasmalang kebo-keboan traditional ceremony.

4 CONCLUSION

Based on the results of research that has been carried out an analysis and discussion of it, it can be concluded that there is a geometrical concept in the equipment used by the Alasmalang village community in carrying out the traditional kebo-keboan ceremony in Alasmalang village. Ethnomatematics obtained are located in the activity of designing and measuring ceremonial equipment including: palawija gate, wallow, mountains of crops, cone, Dewi Sri chariot, singkal, teter, keboan horn, keboan necklace and farmers hat. The palawija gate, the mountain of produce, Dewi Sri's chariot and the cone are symbolic of gratitude for the harvest that God has given to the people of Alasmalang village. Puddles, singkal, teter, horns and keboan necklaces, as well as farmers' hats are equipment that can never be separated from the lives of farmers in the village of Alasmalang. Based on the form, the making and determination of the place in a series of events also the equipment used has various geometrical concepts including: points and lines, angles, flat shapes, space constructions, congruence and harmony, and geometric transformations.

REFERENCES

[1] E. Yudianto and Sunardi, "Antisipasi siswa level analisis dalam menyelesaikan masalah geometri," *AdMathEdu*, vol. 5, no. 2, pp. 203–216, 2015.

[2] Sunardi, E. Yudianto, Susanto, D. Kurniati, R. D. Cahyo, and Subanji, "Anxiety of students in visualization, analysis, and informal deduction levels to solve geometry problems," *Int. J. Learn. Teach. Educ. Res.*, 2019.

[3] E. Yudianto, S. Suwarsono, and D. Juniati, "The Anticipation: How to Solve Problem in Integral?," *J. Phys. Conf. Ser.*, vol. 824, no. 1, 2017.

[4] E. Yudianto, Sunardi, T. Sugiarti, Susanto, Suharto, and D. Trapsilasiwi, "The identification of van Hiele level students on the topic of space analytic geometry," *J. Phys. Conf. Ser.*, vol. 983, no. 1, pp. 1–5, 2018.

[5] N. R. R. Salingay and D. A. Tan, "Concrete-pictorial-abstract approach on students' attitude and performance in mathematics," *Int. J. Sci. Technol. Res.*, vol. 7, no. 5, pp. 90–111, 2018.

[6] E. Yudianto, D. Trapsilasiwi, Sunardi, Suharto, Susanto, and Yulyaningsih, "The process of student's thinking deduction level to solve the problem of geometry," *J. Phys. Conf. Ser.*, vol. 1321, no. 2, 2019.

[7] S. Fatimah and Yerizon, "Analysis of difficulty learning calculus subject for mathematical education students," *Int. J. Sci. Technol. Res.*, vol. 8, no. 3, pp. 80–84, 2019.

[8] . C. Andamon and D. A. Tan, "Conceptual understanding, attitude and performance in mathematics of Grade 7 Students," *Int. J. Sci. Technol. Res.*, vol. 7, no. 8, pp. 96–105, 2018.

[9] H. Suharna and I. Alhaddad, "The structure of mathematical reasoning in mathematical problems," *Int. J. Sci. Technol. Res.*, vol. 7, no. 8, pp. 252–260, 2018.

[10] L. Mauluah and Marsigit, "Ethnomathematics for elementary student: Exploration the learning resources at kraton Yogyakarta," *Int. J. Sci. Technol. Res.*, vol. 8, no. 7, pp. 776–780, 2019.

[11] E. Tandililing, "Pengembangan Pembelajaran Matematika Sekolah Dengan Pendekatan Etnomatematika Berbasis Budaya Lokal Sebagai Upaya Untuk Meningkatkan Kualitas pembelajaran Matematika di Sekolah," *Prosiding*, no. 1992, pp. 978–979, 2013.

[12] T. Nusantara and S. Rahardjo, "Ethnomathematics in Arfak West Papua-Indonesia Numeracy ff Arfak," *Int. J. Sci. Technol. Res.*, vol. 06, no. 09, pp. 325–327, 2017.

[13] U. D'Ambrosio, "Ethnomathematics and Its Place in the History and Pedagogy of Mathematics on JSTOR," *Learn. Math.*, vol. 5, pp. 44–48, 1985.

[14] W. Widada *et al.*, "Characteristics of students thinking in understanding geometry in learning ethnomathematics," *Int. J. Sci. Technol. Res.*, vol. 8, no. 11, pp. 3496–3503, 2019.

[15] A. F. N. Muhammad, Marsigit, and Soeharto, "A case study of geometri literacy in elementary school through ethnomathematics at borobudur temple Indonesia," *Int. J. Sci. Technol. Res.*, vol. 8, no. 10, pp. 1041–1045, 2019.

[16] J. Boaler, "The Role of Contexts in the Mathematics Classroom: Do They Make Mathematics More Real?," *Learn. Math.*, vol. 13, pp. 12–17, 1993.

[17] E. Purwaningsih, "Kebo-Keboan Aset Budaya di Kabupaten Banyuwangi," *Jantra*, vol. II no.4, pp. 273–277, 2007.

[18] A. T. Febriyanti, "Mantra Dalam Upacara Adat Kebo-Keboan Masyarakat Using Banyuwangi," Universitas Jember, 2007.

[19] B. Ulum, M. T. Budiarto, and R. Ekawati, "Etnomatematika Pasuruan : Eksplorasi Geometri Untuk Sekolah Dasar Pada Motif Batik Pasedahan Suropati," *Semin. Nas. Integr. Mat. dan Nilai Islam*, vol. 1, no. 1, pp. 70–8, 2017.

[20] A. Hartoyo, "Eksplorasi Etnomatematika pada Budaya Masyarakat Dayak Perbatasan Indonesia-Malaysia Kabupaten Sanggau Kalbar," *J. Penelit. Pendidik.*, vol. 13, no. 1, pp. 14–23, 2012.

[21] S. Wahyu, T. B. Setiawan, and Sunardi, "Etnomatematika pada Pura Mandara Giri Semeru Agung sebagai Bahan Pembelajaran Matematika," *KadikMa*, vol. 9, no. 1, pp. 156–164, 2018.

[22] P. Stathopoulou, C., Kotarinou, P., y Appelbaum, "Ethnomathematical research and drama in education techniques: developing a dialogue in a Geometry class of 10th grade students," *Rev. Latinoam. Etnomatemática*, 2015.

[23] M. E. Gavarrete and V. Albanese, "Etnomatemáticas de signos culturales y su incidencia en la formación de maestros," *Rev. Latinoam. Etnomatemática*, 2015.