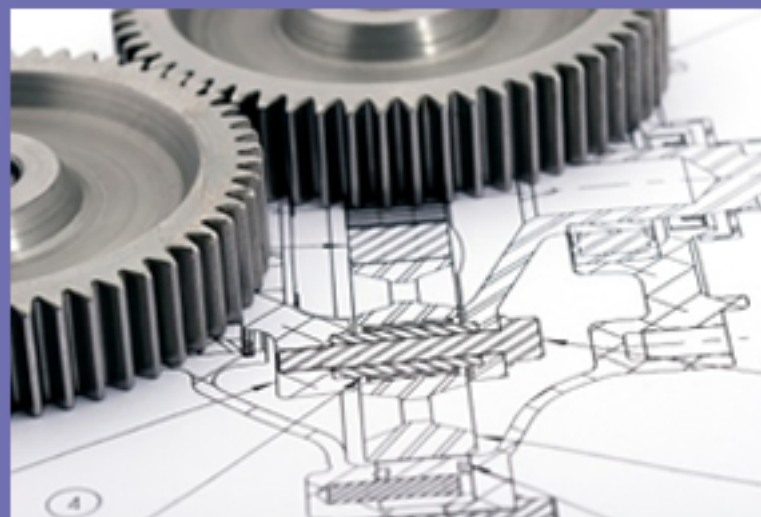


International Journal of Engineering & Technology



ISSN: 0975-4024

www.enggjournals.com/ijet

International Journal of Engineering and Technology[Home](#)[IJET Topics](#)[Call for Papers 2020](#)[Author Guidelines](#)[Special Issue](#)[Current Issue](#)[Articles in Press](#)[Archives](#)[Editorial Board](#)[Reviewer List](#)[Publication Ethics and](#)[Malpractice statement](#)[Authors Publication Ethics](#)[Policy of screening for plagiarism](#)[Open Access Statement](#)[Terms and Conditions](#)[Contact Us](#)**IJET Editorial Board****EDITOR IN CHIEF****K.SivaKumar,**
KEJA Technologies,
Singapore**Dr. S.S. RIAZ AHAMED AMIE.,MCA.,M.Phil.,M.Tech.,MIEEEE.,MACM.,Ph.D.,FIETE.,C.Engg.**
Principal, Sathak Institute Of Information Technology, Ramanathapuram, Tamilnadu, INDIA**ASSOCIATE EDITOR****A.Selvi,**
SIPS Technologies,
India**Dr. Jingchao Zhang**

Holland Computing Center | University of Nebraska-Lincoln, Lincoln, NE 68588, USA.

Dr. Shuming Chen Ph.D.Associate Professor of Vehicle Engineering
College of Automotive Engineering
Jilin University
No. 5988 Renmin Street, Changchun, Jilin, 130022, China**Dr. G. Ayyappan**

Bharath Institute of Higher Education and Research, Chennai, India.

EDITORIAL OFFICE**M.Azath**
Calicut university/Mets School of Engineering, Kerala, India.**Bilal Bahaa Zaidan**

Al- Nahrain University, Baghdad, Iraq

Dr. S. Abdul Khader JilaniCollege of Computers & Information Technology, University of Tabuk, Tabuk,
Ministry of Higher Education, The Kingdom of Saudi Arabia.**Dr. Vipin Kakkur**

Associate Professor, Q. No. 6, Chanakya Marg, Shri Mata Vaishno Devi Univers Katra. J&K. 182 320. India.

Dr. DEBOJYOTI MITRAAssociate Professor & Head, Mechanical Engineering Department, Sir Padampat Singhania University,
Hill Villa Annexe, Opp. Hotel Hilltop Palace, Ambavgarh, Udaipur 313001, Rajasthan, India.**Dr.S.Sasikumar**

Professor and head, Department of ECE.,Hindustan college of Engg. and Tech.,Coimbatore.

Dr. GOVINDARAJ THANGAVEL

Professor, Muthayammal Engineering College , Rasipuram, India

Dr. Vijay Srivatsan

Digital Technology Lab. Corp. (Subsidiary of Mori Seiki), Davis, CA

Dr. Wang Yong-gang

School of Highway Chang'an University 901 Transportation Sci. & Tech. Building, Middle Section of Nanerhuan, Xi'an 710064, P. R. China

Dr. NAOUFAL RAISSOUNIProfessor of Remote Sensing and Physics at the National Engineering School for Applied Sciences,
Abdelmalek Essaadi University, Tangier-Tetouan-Morocco**Dr. G. V. NAGESH KUMAR**

Department of EEE Vignan's Institute of Information Technology Duvvada, Visakhapatnam, India

Dr. VELAYUTHAM P

Adhiparasakthi Engineering College, Melmaruvathur, India

Dr DANWE RAIDANDI

Head of Mechanical Department, The College of Technology, University of DOUALA, Cameroon.

Dr. Bharat Raj Singh

Professor and Associate Director, School of Management Sciences, Technical Campus, India.

DR. SIVARAO SUBRAMONIAN

ASSOC. PROFESSOR, UNIVERSITI TEKNIKAL MALAYSIA MELAKA(UTeM), MELAKA, MALAYSIA.

Vijendra Singh

Assistant Professor, MITS, Lakshmangarh(sikar),Rajasthan-332311

Dr B.RUSHI KUMAR

Assistant Professor, VIT University, Vellore-632014, INDIA

Dr. Mueen Uddin

Senior Lecturer, Asia Pacific University of Technology and Innovation Kuala Lumpur Malaysia

Jian ian Liu

R&D Engineer in Alcon Laboratories

R.NAVANEETHAKRISHNAN

"Associate Professor, Bharathiyar College of Engineering & Technology, Karaikal"

Varun.G.Menon

Assistant Professor, SCMS School of Engineering and Technology, Karukutty, Kerala

T.R. Neelakantan

Associate Dean (Research), SASTRA Deemed University, Thanjavur, TN, India

Mr.Harikishore

Assistant Professor, KL University, Vijayawada, Andhra Pradesh, India.

Dr. Mohammad Israr

Principal, Balaji Engineering College, Junagadh [Gujrat]

B.T.P.MADHAV

Associate Professor, KLU

Bensafi Abd-El-Hamid

Associate Professor, Abou Bekr Belkaid University of Tlemcen

Dr. M.Chithirai Pon SelvanAssociate Professor,
Amity University, Dubai.**Dr. SREENIVASA RAO BASAVALA**

Sr. Application Security Specialist, Yodlee InfoTech Pvt. Ltd, Bangalore.

DR. BRIJENDER KAHANWAL

Associate Professor, Galaxy Global Imperial Technical Campus, Dinarpur, Ambala

D . Asir Antony Gnana Singh

Assistant Professor, M.I.E.T Engineering College, Trichy-7, India.

Ahmed Nabih Zaki Rashed

lecturer in Menoufia University

SEYEZHAI RAMALINGAM

Associate Professor, SSN College of Engineering, Kalavakkam, Tamilnadu.

Shahryar Sorooshian

Senior lecturer, University Malaysia Pahang (UMP), Malaysia

GOVINDARAJ THANGAVEL

Professor, Muthayammal Engineering College , Rasipuram

Wang Yong-gang

Chang'an University, Transportation Sci. & Tech. Building, Middle Section of Nanerhuan, Xi'an 710064, P. R. China

Dr. S. Abdul Khader Jilani

Lecturer in College of Computers and Information Technology, University of Tabuk, Tabuk, The Kingdom of Saudi Arabia.

Lai Khin Wee

Research Officer, Universiti Teknologi Malaysia

Vijay Srivatsan

Vision Team Leader, Digital Technology Lab. Corp., Davis, CA

Mr. Kodge Bheemashankar G.

lecturer/Head, Swami Vivekanand College, Udgir Dist. Latur (MH) INDIA.

Dr.S.Sasikumar

Professor and Head, Hindustan College of Engineering and Technology, Coimbatore

Dr. DEBOJYOTI MITRA

Associate Professor & Head, Sir Padampat Singhania University, Hill Villa Annexe, Opp. Hotel Hilltop Palace, Ambavgarh, Udaipur 313001, Rajasthan, India.

Prof. T.Venkat Narayana Rao

Professor and Head, Hyderabad Institute of Technology and Management , Kompally, R.R Dist.

Dr. NAOUFAL RAISSOUNI

Professor, Abdelmalek Essaadi University, Tangier-Tetouan-Morocco

Rajesh Kumar Vishwakarma

Senior Lecturer, Jaypee University of Engineering & Technology A. B. Road Raghogarh, Dist.Guna 473226 (M.P) INDIA

Dr. G. V. NAGESH KUMAR

Associate Professor, Vignan's Institute of Information Technology, Duvvada, Visakhapatnam - 530046

Adis Medić

System and Network Engineer, Infosys ltd-Bosanska Krupa, Una-Sana Canton, Bosnia and Herzegovina

Raj Gaurang Tiwari

Assistant Professor, Azad Institute of Engineering and Technology, Lucknow-226002, UP INDIA

VELAYUTHAM .P

Associate Professor, Adhiparasakthi Engineering College, Melmaruvathur

M. DANWE Raidandi

Head, The College of Technology, University of DOUALA, Cameroon.

VIVEK S. DESHPANDE

Assistant Professor, MIT College of Engineering, Pune, India

Umbarkar Anantkumar Janardan

Assistant Professor, Walchand College of Engineering, SANGLI.

Jifeng Wang

University of Illinois at Urbana-Champaign

ANUJ K. GUPTA

Associate Prof., RIMT - Institute of Engineering & Technology, Mandi Gobindgarh

SUKUMAR SENTHILKUMAR

Post Doctoral Fellow, Universiti Sains Malaysia, Pulau Pinang-11800 [Penang], Malaysia.

Maniya Kalpesh Dudabhai

Lecturer/ Asst. Professor, C.K.Pithawalla college of Engg.& Tech.,Surat

Harish Kumar

Scientist in Force & Hardness Standard Group of National Physical Laboratory, New Delhi

P.VELAYUTHAM

Assistant Professor, Adhiparasakthi Engineering College, Melmaruvathur

Prasenjit Chatterjee

Assistant Professor, MCKV Institute of Engineering, a Co-ed P.G. Degree Engineering College, Liluah, Howrah, West Bengal

Mariya Petrova Aleksandrova

Assistant Professor and Department Researcher, Technical University of Sofia, Faculty of Electronic Engineering and Technologies, Sofia, Kliment Ohridski blv, 8

Süleyman KORKUT

Associate Professor, Duzce University, Duzce-Turkey.

Sina Kazemian

Senior Geotechnical Engineer, SCG Consultant Company, Selangor, Malaysia

U C srivastava

Asst.Professor, Amity University, Noida, U.P-201301-India

Ch.V.Subbarao

Assistant Professor, University of Petroleum and Energy studies-Rajahmundry.

Antonella Petrillo

Contract Researcher in Industrial Plant with specific skills in Multicriteria Decision Analysis and Decision Support System, University of Cassino

Dr. Debasish Basak

Senior Principal Scientist, Central Institute of Mining and Fuel Research, Barwa Road, Dhanbad – 826015.

FAHIMUDDIN.SHAIK

Assistant Professor, Annamacharya Institute of Technology & Sciences, Rajampet, A.P.

DR. DEWAN MUHAMMAD NURUZZAMAN

Professor, Dhaka University of Engineering and Technology (DUET), Gazipur, Gazipur-1700, Bangladesh.

Dr V S GIRIDHAR AKULA

Professor and Principal At Vemu Inst of Tech, P Kotha Kota Chittoor dist

Prasenjit Chatterjee

Assistant Professor, MCKV Institute of Engineering, a Co-ed P.G. Degree Engineering College, Liluah, Howrah, West Bengal

Amin Paykani

Lecturer in Goldis English Institute, Tabriz.

Dr. Sameer Mahadeorao Wagh

Assistant Professor, Laxminarayan Institute of Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Dhahri Amel

Research professor, Gafsa University-Faculty of Sciences

Dr.Waleed Khalil Ahmed

Instructor, United Arab Emirates University

DR. RAJNEESH KUMAR GUJRAL

Assoc. Professor, M.M. Engineering College, M.M university Mullana, Ambala-133 203, Haryana, India"

Ing. Norbert Herencsar

Contact person of the LLP Erasmus Bilateral Agreement, Czech Republic and Karadeniz Technical University, Trabzon, Turkey.

Dr.R.SATHISHKUMAR

Professor and Head, , Kodaikanal Institute of Technology, Dindigul Dist, India

Dr.V.Vaithiyanathan

Associate Dean – Research, School of Computing, SASTRA University, Thanjavur 613 401

SEDDIK BRI

Professor – Researcher, Materials and Instrumentations (MIN), Electrical Engineering Department, High School of Technology, Meknes - Morocco

Dr. Saurabh Pal

Sr. Lecturer, VBS Purvanchal Univ. Jaunpur

R.MANIKANDAN

Senior Assistant Professor, SASTRA University, Thanjavur, India

Professor.K.S.Zakiuddin

Dean Academics (PG), Professor & Head, Dept of Mech Engg,Nagpur.

K.V.L.N.ACHARYULU

Associate Professor, Bapatla Engineering College,Bapatla.

Dr. R. S. SHAJI

Professor at Noorul Islam University, Kumaracoil.

Dr. Roli Pradhan

Assistant Professor, Maulana Azad National Institute of Technology

Sunny Narayan

Assistant professor & Departmental coordinator, Indus University, India.

Dr. A. SENTHIL KUMAR

Professor, Velammal Engineering College, Chennai

Dr. C. LAKSHMI DEVASENA

Assistant Professor, IBS, Hyderabad

All Rights Reserved © 2009 - 2020 Engg Journals Publications



This work is licensed under a [Creative Commons Attribution 2.5 India License](https://creativecommons.org/licenses/by/2.5/in/).

International Journal of Engineering and Technology

[Home](#)[IJET Topics](#)[Call for Papers 2019](#)[Author Guidelines](#)[Special Issue](#)[Current Issue](#)[Articles in Press](#)[Archives](#)[Editorial Board](#)[Reviewer List](#)[Publication Ethics and Malpractice statement](#)[Authors Publication Ethics](#)[Policy of screening for plagiarism](#)[Open Access Statement](#)[Terms and Conditions](#)[Contact Us](#)

VOLUME 10 Issue 3

ISSN: 0975-4024





Vol. 10, No.3

Search the Article

Custom Search

Search

Article #	Article Title & Authors (Volume 10 Issue 3 Jun-Jul 2018)	Page
1.	A Modified Lempel Ziv Welch compressive data collection in Wireless Sensor Networks M.Vijayalakshmi, A.Helen Victoria  PDF DOI : 10.21817/ijet/2018/v10i3/181003301	628-637
2.	Managing road route networks using userdefined keywords Gopalika Sharma, Shubham Mehrotra, Drishti Chauhan  PDF DOI : 10.21817/ijet/2018/v10i3/181003005	638-646
3.	Determination of the Critical Buckling Load of Shear Deformable Unified Beam M. E. ONYIA, E. O. ROWLAND-LATO  PDF DOI : 10.21817/ijet/2018/v10i3/181003026	647-657
4.	Modelling of Traffic Flow on West Jakarta Highways Ahmad Faza, Friska Natalia  PDF DOI : 10.21817/ijet/2018/v10i3/181003002	658-666
5.	An Experimental Investigation to Reduce the Temperature of Hot Air by means of a Vortex Tubefed with Low Inlet Air Pressure and a Specific Snail Nozzle Geometry Wasan Naksanee, Ratthasak Prommas  PDF DOI : 10.21817/ijet/2018/v10i3/181003047	667-679
6.	Investigation of Process Variables on Forming Forces in Incremental Sheet Forming Ajay Kumar, Vishal Gulati, Parveen Kumar  PDF DOI : 10.21817/ijet/2018/v10i3/181003021	680-684
7.	Characterization of students admitted to medical-surgical specializations at The University of Cartagena, 2016-2 Virna Caraballo Osorio, Rita Sierra Merlano, Marlene Duran Lengua  PDF DOI : 10.21817/ijet/2018/v10i3/181003050	685-691
8.	An Assessment of the Drought Index as Impact of Climate Change Using MockWyn-UB Model I WayanSutapa, Saiful Darman, Djayani Nurdin, Fathurrahman  PDF DOI : 10.21817/ijet/2018/v10i3/181003032	692-698
9.	Design and analysis of DNA Binary Cryptography Algorithm for Plaintext Hassan Al-Mahdi, Osama R.Shahin, Yasser Fouad, Khalid Alkhalid  PDF DOI : 10.21817/ijet/2018/v10i3/181003055	699-706
10.	Broadband Dual Circularly Polarized CBand Antennas P Ilamathi, G Prema  PDF DOI : 10.21817/ijet/2018/v10i3/181003039	707-720
11.	Enhanced Residential Bathroom Sustainability: Challenges and Opportunities VishnudasChettiappilly Hari, Maryam Imani, Ahad Ramezanpour  PDF DOI : 10.21817/ijet/2018/v10i3/181003003	721-741
12.	EXPERIMENTAL INVESTIGATION ON VOLUMETRIC PROPERTIES OF BITUMINOUS CONCRETE MIXES WITH HOT MIX ASPHALT AND WARM MIX ASPHALT TECHNOLOGY Aditya Tantry, Archana G M, G M Shankarmurthy, Prashanth Wuruli, Praveen R  PDF DOI : 10.21817/ijet/2018/v10i3/181003118	742-752
13.	Implementation of Communication Interfaces in Power Converters Snehal R. Watharkar, Mahadev S. Patil  PDF DOI : 10.21817/ijet/2018/v10i3/181003113	753-763
14.	SMC BASED GRID INTEGRATED SOLAR PV SYSTEM USING SUPERLIFT BOOST CONVERTER P.Pugazhendiran, MohamedImran.R, Anwar Batcha.J.J  PDF DOI : 10.21817/ijet/2018/v10i3/181003091	764-773
15.	Determinants of Non-performing Assets of Commercial Banks in India: An Econometric Study T.K. Jayaraman, Keshmeer Makun, Ajeshni Sharma  PDF DOI : 10.21817/ijet/2018/v10i3/181003071	774-783
16.	Predicting Metal Temperature of Re-Heater Tubes of a typical Super Critical Utility Boiler using CFD Technique	784-796

	Deepak Kumar Kanungo, Ravi Kiran A, Sachin Kumar Shrivastava	
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003011	
17.	The potential of multi-frequency multipolarized ALOS-2/PALSAR-2 and Sentinel-1 SAR data for aboveground forest biomass estimation Thota Sivasankar, Junaid Mushtaq Lone, K.K. Sarma, Abdul Qadir, P.L.N. Raju	797-802
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003095	
18.	A Review on Electric Wheelchair Innovation to Ease Mobility and As a Rehabilitation Tool for Spinal Cord Impairment Patient M. H. Muhammad Sidik, S. A. Che Ghani, M. Ishak, W. S. W. Harun, N. Daud	803-815
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003074	
19.	RDSNET: A proposal for control architecture for software defined MANETs Sergio Mora, Jhon Vera	816-827
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003104	
20.	THEORETICAL MODELING OF A STEAM POWER CYCLE USING AN INTERACTIVE COMPUTATIONAL TOOL Cristina Lizarazo, Carlos Acevedo Peñaloza, Guillermo Valencia Ochoa	828-833
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003102	
21.	Experimental Investigation on Concrete with Replacement of Fine Aggregate by Lathe Waste Hemanth Tunga G N, Rasina K V, Akshatha S P	834-837
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003112	
22.	TECHNICAL-ECONOMIC STUDY OF THE FEED PER TOOTH INFLUENCE IN A CYLINDRICAL MILLING PROCESS OF ALLOYED STEELS Milton F. Coba Salcedo, Carlos Acevedo Peñaloza, Guillermo Valencia Ochoa	838-842
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003096	
23.	Security & privacy in IoT Data Provenance Adarsh.T.K, Dr. R Jebakumar	843-847
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003085	
24.	EFFECT OF THE PRESSURE RATIO IN GAS TURBINE FOR POWER GENERATION: AN EXERGY AND THERMODYNAMIC ANALYSIS Nelly A. De Armas Calderón, Guillermo E. Valencia Ochoa, Alfonso Rodríguez Peña	848-853
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003101	
25.	Intrinsic Compilation Model to enhance Performance of real time application in embedded multi core system Sumalatha Aradhya, Dr.N K Srinath	854-864
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003098	
26.	Catholic Church is the Divinity Symbol with the Case Study of Santa Theresia Church in Jakarta, Indonesia Rudy Trisno, Fermanto Lianto	865-872
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003099	
27.	Study of Energy Saving for Fish Preservation by Refrigeration SystemBased on Ozone Technology Muhammad Nur, K. Sofjan Firdausi, Ade Ika Susan, Andi Wibowo Kinandana, Fajar Arianto, SaifurRijal, Eva Sasmita, MelizaPuspita, Yuliani, IntanZahar, EkoYulianto, Azwar Usman	873-881
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003070	
28.	EFFECT OF THE FEED RATE AND DEPTH ON MACHINING COST IN CUTTING PROCESS Milton F. Coba Salcedo, Rafael Ramirez Restrepo, Guillermo Valencia Ochoa	882-886
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003090	
29.	Computer-Aided Exergy Study of a Gas Microturbine Cogeneration System Guillermo Valencia Ochoa, Jorge Duarte Forero, Luis Obregón Quiñones	887-892
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003052	
30.	Agile method for detecting DDoS attacks in the application layer based on user's dynamism Silvia Bravo, David Mauricio	893-899
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003125	
31.	Technology and Learning Base for Sustainable Energy Conservation Chavipa Phongthanachote, Ratthasak Phommas	900-903
	 PDF DOI : 10.21817/ijet/2018/v10i3/181003127	

All Rights Reserved © 2009 - 2020 Engg Journals Publications



This work is licensed under a Creative Commons Attribution 2.5 India License.

Catholic Church is the Divinity Symbol with the Case Study of Santa Theresia Church in Jakarta, Indonesia

Rudy Trisno^{#1}, Fermanto Lianto^{*2}

[#] Architecture Department, Tarumanagara University
S. Parman No. 1, Jakarta 11440, Indonesia

¹ rudyt@ft.untar.ac.id

² fermantol@ft.untar.ac.id

Abstract—This research aims to trace the liturgical relation with the spatial configuration with the Catholic Church architecture form. The methodology used in this research is first, recording Church building of Santa Theresia then re-draw it in three dimensional (3D) to analyse the entire Church architectural formation and its ornament. Second, are the combination of the sacred approaches from Eliade, Hoffman, Jones, and Barrie, while the liturgy of the Catholic Church is using the approach from Martasudjita and the architectural alignment is using the approach from Salura where the study case started with the anatomy from the environment scope, site scope, building, and figure scope. All of these are to explore the sacred concept of the function of liturgy that linked to its form. The results concluded that the Catholic Church form is a symbol of divinity and ideogram. Thus if the scope of the environment, the sites, the building and the figure corresponds to the aspect of creating sacred values, the whole architecture of Santa Theresia's Church can be stated to radiate a sacred expression.

Keyword - Catholic Church, Divinity Symbol, Architectural Formation, Ideogram

I. INTRODUCTION

The phenomenon of the form of the Catholic Church after Vatican II is diverse because of technological advances and the absence of clear rules for the architecture shape of the Catholic Church

The phenomenon of Catholic Church architecture form is the cause of the faded architecture form of Catholic Church. The problem of fade of the Catholic Church's architecture form actually took place before the Second Vatican Council, but after the Second Vatican Council the fade of the sacred values of both the inner and the outer space of the Catholic Church also increasing.

The fading issue of the sacred value of the form of Catholic Church was not caused by the Second Vatican Council but it is because of the misinterpretation of the policy from the Second Vatican Council [1], therefore, the issue of fading form of architecture in the Catholic Church is appealing to be a topic for this study.

The issue of fading form of architecture in the Catholic Church gained special attention from Pope Benedict XVI, therefore he sent Cardinal Antonio Canizares Llovera as chairman of the Congregation for Divine Worship and The Discipline of the Sacraments committee to overcome this problem by creating Instruction IV as a response to this problem [2]. The main issue in this research is the relationship between the liturgical function with the architectural form which includes the spatial configuration.

The use and benefits derived from this research are: First, deep understanding of the sacred Catholic Church form of architecture; Second, to add the theoretical glossary about the dynamics of the relationships between the functions and the form as well as the spatial configuration; Third, giving specific input to all stakeholders about the form of a Catholic Church that is in line with Catholic values; Fourth, to put a position of the development of the sacred value of the Catholic Church in the context of an increasingly globalized world.

II. MATERIAL AND METHOD

In principle, the analysis based on the relationship aspect of the architectural forms and function; although it is realized that in a reality, the two aspects above cannot be separated [3]. But for this study, the emphasis will be only on the analysis of the relationship between the functional aspects and the form.

The first step is to describe all of the liturgical activities in the Catholic Church. The breakdown of liturgical activities is conducted on weekly periodic activities basis [4]. This recording is being conducted using Martasudjita's approach [5] and the symbolic liturgy [6] is composed of the Profane-Sacral, which includes Narthex, Nave and Sanctuary as shown in Fig. 1.

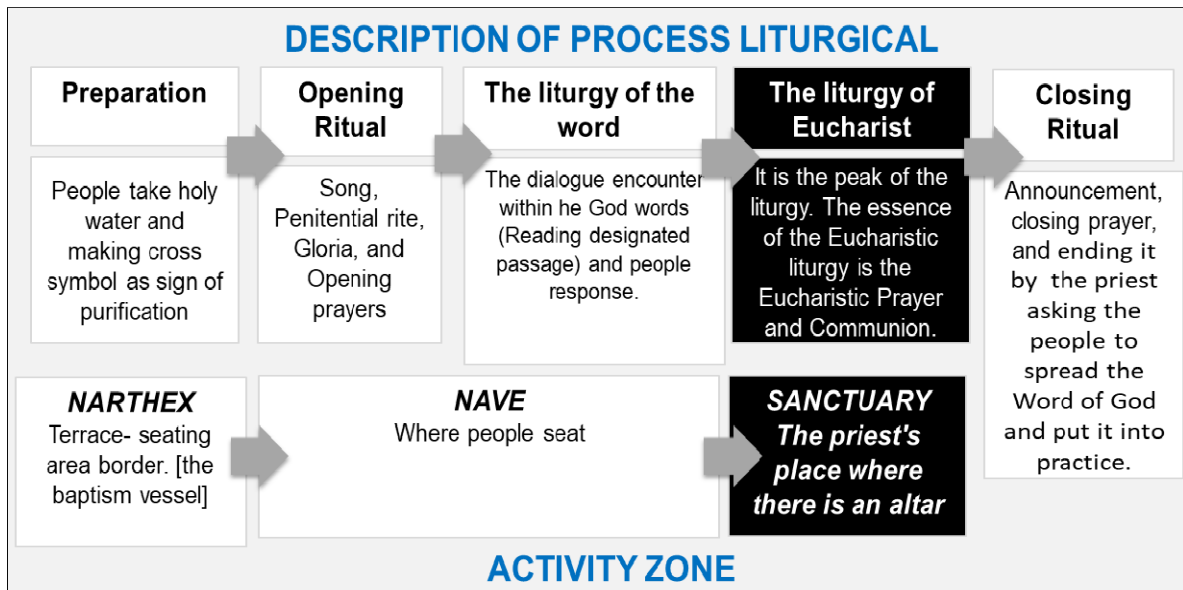


Fig.1. Liturgy Symbol.

The concept of sacred value in the liturgy requires the imagination of the spatial dimensions and sacred forms derived from the Eliade [7], displays the axis mundi as the centre of the world and it is sublimated to the sacral building, as a sacral orientation. Eliade take an example of the mountain as the embodiment of the axis mundi as the highest orientation has the most sacred value. Jones [8], develops orientation, symmetrical axis, spatial order and form based on hierarchical concepts, monumental scale, and light arrangement to create sacred expressions. Another sacred expert is Barrie [9], he reveals spatial sequences based on the hierarchical concepts and balancing principles underlying the creation of the sacral geometry. Hoffman [10], is an architect who has done sacred studies that exposes the identification of architectural elements inside and outside the building, the archetypal indication elements, and atmospheric ambiguities. We search for the conformity from all of the approaches including the liturgy approach according to Martasudjita and also the sacred approach according to Eliade, Jones, Barrie, and Hoffman. The conformity is the spatial configuration aspect which includes location, orientation, hierarchy, spatial arrangement, zoning sequence, and axis as well as the conformity of the aspects of the form of the building which includes the composition, appearance, scale, color material, ornamentation, and texture.

The Salura Approach [11] covers the scope of anatomy i.e. the scope of the figure, the scope of the building, the scope of the site and the scope of the environment as shown in Fig. 2. The sacred concept of the liturgy is analysed in the Church of Santa Theresia in Jakarta, Indonesia.

The second step is to conduct an analysis based on the framework for the case study interpretation at the Santa Theresia's Church in Jakarta, Indonesia. The Church was first open with an anatomical scope approach from Salura [12] and it includes the Environmental Scope, Scope of Site, Scope of the Building and Scope of the Figure as shown in Fig. 2.

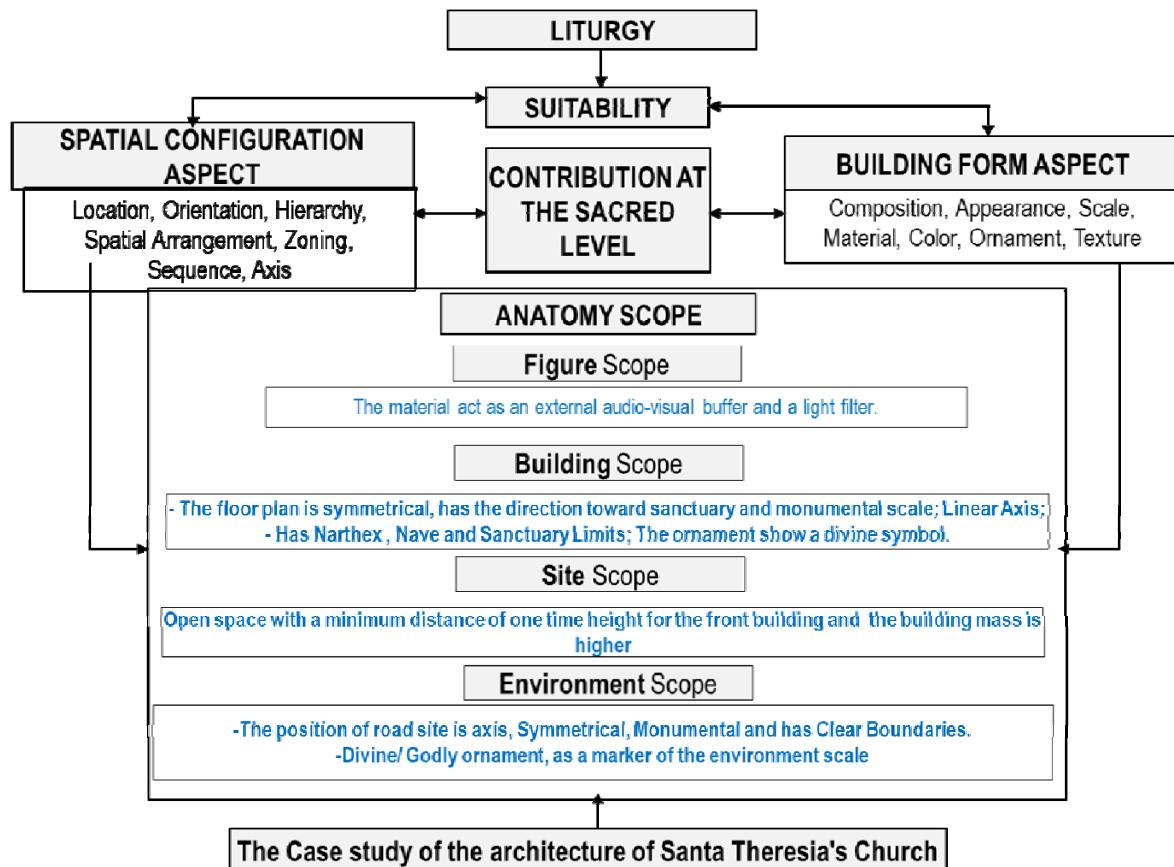


Fig.2. Reference framework for the interpretation of study cases.

The first step encompasses the conformity between functions (liturgy), with the concepts that include aspects of the shape and aspects of spatial configuration that contributes to the level of sanctity. The second step is the anatomical scope of the Santa Theresia Church. Hence, from this first and second step we could obtain the meaning of the sacred value from Santa Theresia's Church as shown in Fig.2.

III. RESULTS AND DISCUSSION

The Relationship of the Liturgy between the aspect of Form and aspect Spatial Configuration, from the Architecture of the Catholic Church.

The liturgical relation between the aspect of form and aspect spatial configuration, from the Catholic Church architecture is to obtain the true meaning of sacred value. Whether or not this relationship supports the sacred value. The description of the sacred analysis is as follows:



Firstly, all of the environmental spheres that have the potential to create sacred value with the indicator of the position of the tread on the road axis, symmetrical, monumental and clear boundaries are fulfilled. The next indicator is the presence of the ornamentation of the divine symbol as a marker on the environmental scope.

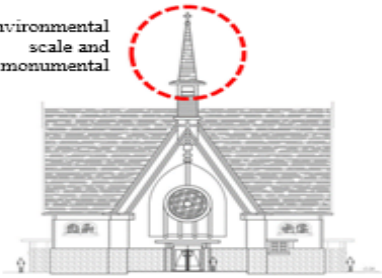
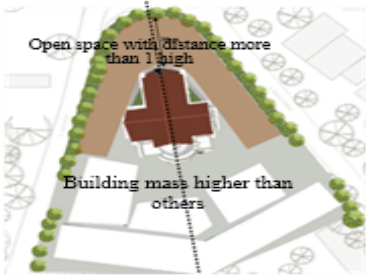
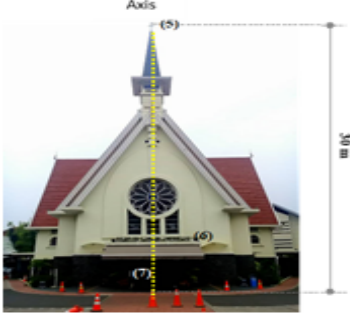
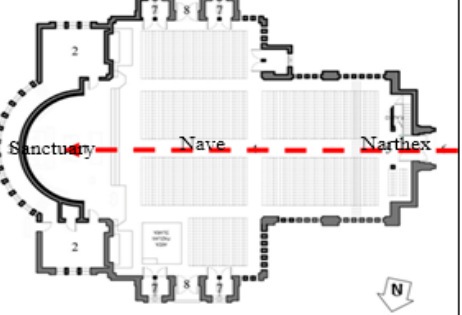
Secondly, all of the scope of the tread that potentially creates sacred value is fulfilled by open space indicator with a minimum distance of one time the height of the building in front of it and high building mass.




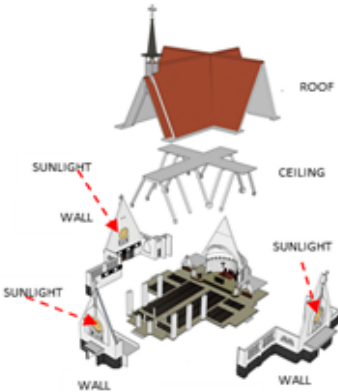
Thirdly, all of the scope of the building that has the potential to create a sacred value are fulfilled by symmetrical plan-type indicator and has a facing direction compared to the centre and monumental scale. The next indicator in the building scope is the clear boundaries that marks the Narthex-Nave-Sanctuary zone, as well as the linear axis that links the Narthex-Nave-Sanctuary. The last indicator in the building scope is the ornamentation that tends to link with symbolic divinity.

Fourthly, all of the scope of a figure that potentially creates a sacred value is fulfilled by a wall indicator that is not only the audial and visual buffer, but also a light filter. The brief description of this sacred analysis can be seen in TABLE I.

TABLE I. Liturgy relationship with form and spatial configuration of the architecture of Catholic Church.

Aspect in reference with the most potential in creating sacred values		Santa Theresa Church, Jakarta-Indonesia	
		Picture	Description
Environment scope	Site position on the road axis, symmetrical, monumental and clear	 <p>Clear boundaries and symmetry</p>	<p>Fulfilled:</p> <p>all of the environmental spheres that have the potential to create sacred value with the indicator of the position of the tread on the road axis, symmetrical, monumental and clear boundaries</p>
Environment scope	Site position on the road axis, symmetrical, monumental and clear	 <p>Axis views from the front of the building</p>	<p>Fulfilled:</p> <p>all of the environmental spheres that have the potential to create sacred value with the indicator of the position of the tread on the road axis, symmetrical, monumental and clear boundaries</p>

Aspect in reference with the most potential in creating sacred values		Santa Theresia Church, Jakarta-Indonesia	
		Picture	Description
	Divine/Godly Ornament symbol for the environment scale sign	<p>Sign environmental scale and monumental</p> 	<p>Fulfilled:</p> <p>The presence of the ornamentation of the divine symbol as a marker on the environmental scope</p>
Site scope	Open space with a minimum distance of one time height in front of building and high building mass		<p>Fulfilled:</p> <p>All of the scope of the tread that potentially creates sacred value is fulfilled by open space indicator with a minimum distance of one time the height of the building in front of it and high building mass</p>
Site scope	Open space with a minimum distance of one time height in front of building and high building mass	<p>Building mass higher than others</p> 	<p>Fulfilled:</p> <p>All of the scope of the tread that potentially creates sacred value is fulfilled by open space indicator with a minimum distance of one time the height of the building in front of it and high building mass</p>
Building scope	The shape of the floor plan is symmetrical, having a facing direction compared to the center and monumental scale	<p>The symmetrical floor plan faces the Altar (Sanctuary)</p> 	<p>Fulfilled:</p> <p>Symmetrical plan-type indicator and has a facing direction compared to the center and monumental scale</p>

Aspect in reference with the most potential in creating sacred values		Santa Theresia Church, Jakarta-Indonesia	
		Picture	Description
	<p>Limits that mark the Narthex-Nave-Sanctuary zone.</p> <p>A linear axis connecting Narthex-Nave-Sanctuary</p>		<p>Fulfilled:</p> <p>The clear boundaries that marks the Narthex-Nave-Sanctuary zone, as well as the linear axis that links the Narthex-Nave-Sanctuary</p>
Building scope	Divine/Godly Ornament		<p>Fulfilled:</p> <p>The ornamentation that tends to link with symbolic divinity</p>
Figure scope	<p>The walls not only become the audible and visual buffers, but also acting as a light filters</p>	 	<p>Fulfilled:</p> <p>Wall indicator that is not only the audial and visual buffer, but also a light filter</p>

Based on the description of TABLE I, it can be concluded that:

First, the most potential reference aspect in creating a sacred value are the scope of the environment the scope of the site, the scope of the building, and the scope of the figure in the analysis of TABLE I are all fulfilled.

Second, the form of the inner space and outer space has a divine ornament that can be regarded as a symbol of divinity/Godly symbol, so that all these findings are leading to sacred values.

Third, the spatial configuration of the liturgy is inclined towards the higher sanctuary, this spatial configuration is regarded as ideogram, ideogram is the idea of motion and sign, the ideal three-dimensional form of rules is based on the liturgy as shown in Fig. 3.

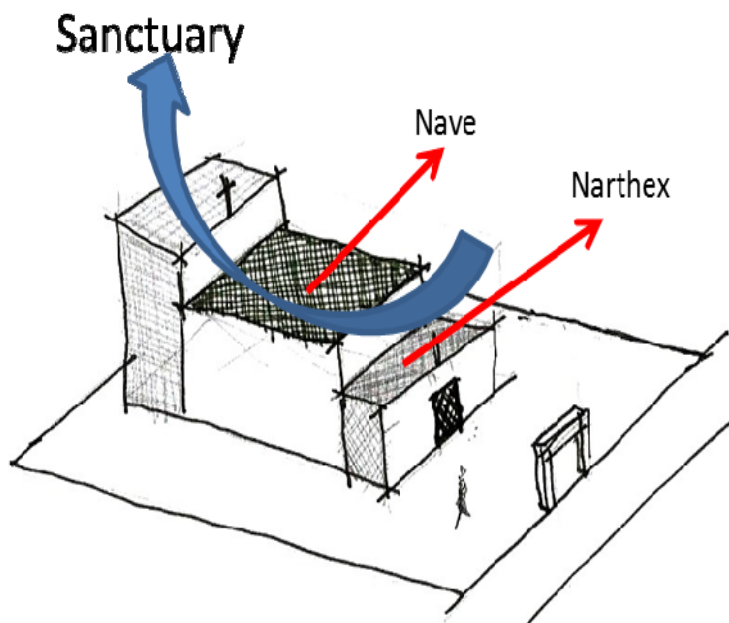


Fig.3. Ideogram.

IV. CONCLUSION

Based on the results of the analysis, it can be concluded that:

The relationship of the liturgy to the form and spatial configuration of Santa Theresia's Church in Jakarta - Indonesia has the interconnecting relationship. This relationship will give the sacred value from outside the building as well inside the building.

The study formulated a new reading and the operational steps in uncovering the relationship between the liturgy with the aspect form and aspect spatial configuration of the Santa Theresia's Church in Jakarta-Indonesia by further elaborating and cross referencing Eliade, Hoffman, Jones, Barrie, Martasudjita and Salura approaches to achieve a sacred concept. From the formulation in this study, it can be concluded that the inner and outer space form of the Catholic Church is a divine symbol/Godly Symbol while the spatial configuration is the ideogram (liturgy).

The sacred concept of the Catholic Church form in which will act as a symbol of deity and ideogram is particularly important to be deeply understood, especially in the design of the Catholic Church and also in the general architecture as this issue is a major issue in the architecture field.

A deep understanding of the relationship between the liturgy and the aspect of form and aspect spatial configuration from Catholic Church architecture will be very useful in positioning the sacred value for the concept of the Catholic Church as well as on the development of architectural Church formation that tends to get more diverse in global developments.

ACKNOWLEDGMENT

I would like to express my sincere gratitude to the teaching staff and friends from the architecture department of Parahyangan Catholic University and Tarumanagara University, who has supported the research. This study can be useful for those who would like to study the sacred value of Catholic Church architecture that is associated with the liturgy with the spatial configuration aspects and the form of the building.

REFERENCES

- [1] Llovera. (2014, July), <http://vaticaninsider.lastampa.it>, Retrieved July 2014.
- [2] D. Y. Srisadono, Konsep Sacred Space dan Penerapannya dalam Gereja Katolik. *Journal Melintas*, 28(2), 2012, pp.182-206.
- [3] P. Salura & B. Fauzy, The Ever-rotating Aspects of Function-Form-Meaning in Architecture. *International Journal of Basic and Applied Scientific Research*, 2(7), 2012, 7086-7090.
- [4] K. W. Gereja, Pedoman Umum Missale Romawi. Jakarta: Nusa Indah, 2002, p.106.
- [5] E. Martasudjita, Liturgi Pengantar untuk Studi dan Praksis Liturgi. Yogyakarta: Kanisius, 2011, p. 44.
- [6] F. Dillistone, The Power of Symbols. Yogyakarta: Kanisius, 2002, p.13.
- [7] M. Eliade, The Sacred and The Profane. (Nurwanto, Trans.) Yogyakarta: Fajar Pustaka Baru, 2002, pp. 7, 30-33, 39, 48-49, 174, 183.
- [8] L. Jones, The Hermeneutics of Sacred Architecture, Volume 2. Cambridge, Massachusetts: Harvard University Press, 2000, pp. 266-293, 296-309.
- [9] T. Barrie, The Sacred In-between The Mediating Roles of Architecture. New York: Routledge, 2010, pp. 75, 176-177.
- [10] D. R. Hoffman, Seeking the Sacred in Contemporary Religious Architecture. Ohio: The Kent State University Press, 2010, pp. 13-41.
- [11] P. Salura, Sebuah Kritik: Arsitektur Yang Membodohkan. Jakarta: Gakushudo Publishing, 2015, pp. 120-124.

AUTHOR PROFILE

Rudy trisno is a lecturer (associate professor), practitioner in architect and interior design, currently teaching architecture in Tarumanagara post graduate program. Architecture scholar education is taken at University of Tarumangara, Architecture post-graduate education at Trisakti University and Architecture doctoral education at Parahyangan Catholic University. Interested in building design especially sacred buildings.

Fermanto Lianto is a lecturer and practitioner in architect, currently teaching architecture in Tarumanagara post graduate program. Architecture scholar education is taken at University of Tarumangara, Engineering post-graduate education at Tarumanagara University and Architecture doctoral education at Parahyangan Catholic University, Indonesia.



SJR

Scimago Journal & Country Rank

Enter Journal Title, ISSN or Publisher Name

[Home](#)[Journal Rankings](#)[Country Rankings](#)[Viz Tools](#)[Help](#)[About Us](#)

Ads by Google

[Stop seeing this ad](#)[Why this ad?](#) ⓘ

International Journal of Engineering and Technology

Country [India](#) - [SJR Ranking of India](#)**Subject Area and Category** [Engineering](#)
[Engineering \(miscellaneous\)](#)**Publisher** [Engg Journals Publications](#)**Publication type** [Journals](#)**ISSN** [23198613, 09754024](#)**Coverage** [2009-2016 \(cancelled\)](#)**Scope** [Information not localized](#)[Homepage](#)[How to publish in this journal](#)[Contact](#)[Join the conversation about this journal](#)

20

H Index



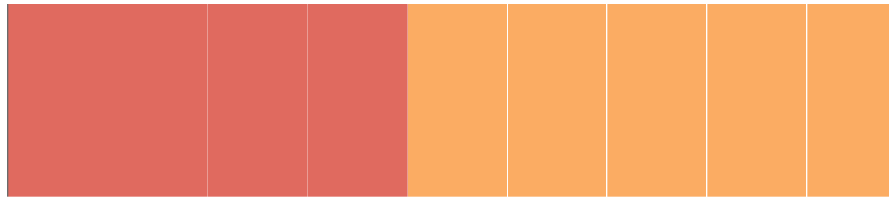
Ads by Google

[Stop seeing this ad](#)[Why this ad?](#) ⓘ

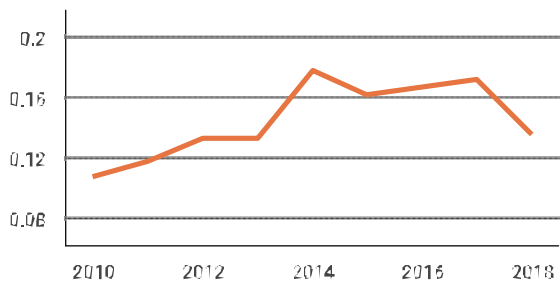
Quartiles



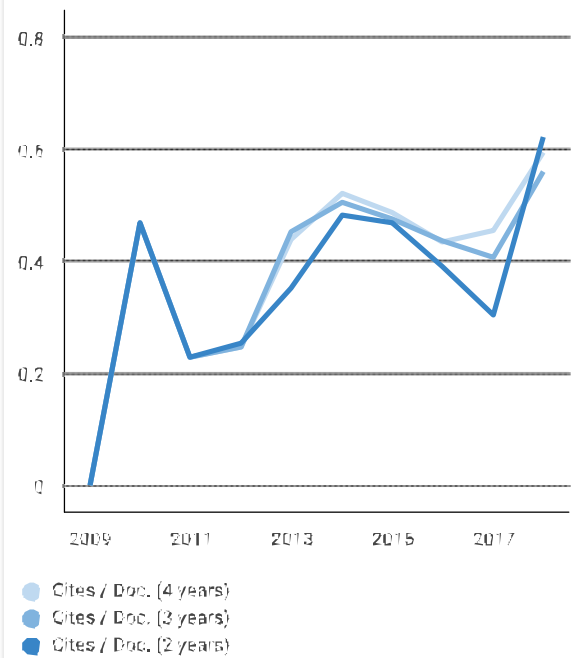
Engineering (miscellaneous)



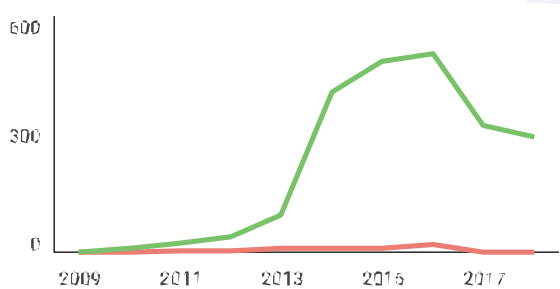
SJIR



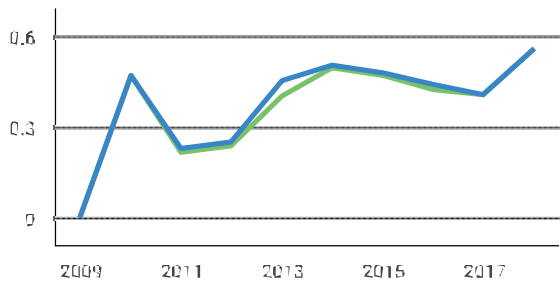
Citations per document



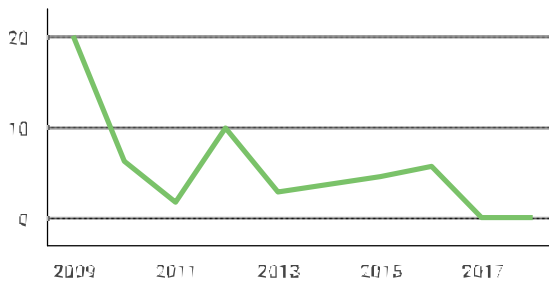
Total Cites Self-Cites



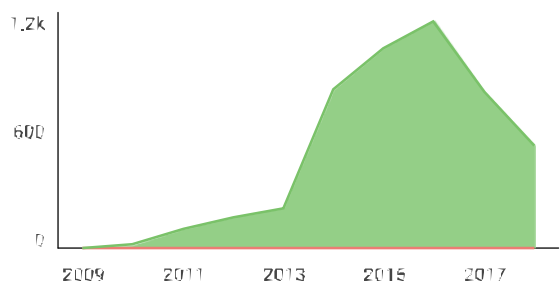
External Cites per Doc Cites per Doc



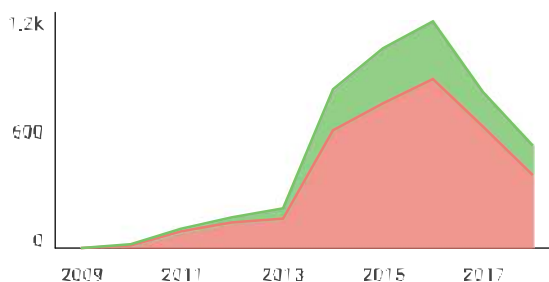
% International Collaboration



Citable documents Non-citable documents



Cited documents Uncited documents

International Journal of
Engineering and Technology← Show this widget in
your own websiteJust copy the code below
and paste within your html
code:`<a href="https://www.scimagojr.com/journalsearch.php?q=21100200832&tip=sid&clean=0"`



Source details

International Journal of Engineering and Technology

Scopus coverage years: from 2009 to 2018

(coverage discontinued in Scopus)

Publisher: Engg Journals Publications

ISSN: 2319-8613 E-ISSN: 0975-4024

Subject area: [Engineering: General Engineering](#)

[View all documents >](#)[Set document alert](#)[Save to source list](#)

CiteScore 2015

0.42[Add CiteScore to your site](#)

SJR 2018

0.135

SNIP 2018

0.676[CiteScore](#)[CiteScore rank & trend](#)[CiteScore presets](#)[Scopus content coverage](#)

CiteScore

2015



Calculated using data from 31 May, 2016

0.42

=

Citation Count 2015

Documents 2012 - 2014*

=

426 Citations >

1,013 Documents >

*CiteScore includes all available document types

[View CiteScore methodology >](#)[CiteScore FAQ >](#)

CiteScore rank ⓘ

Category	Rank	Percentile
Engineering		
General Engineering	#147/262	43rd

[View CiteScore trends >](#)

Metrics displaying this icon are compiled according to Snowball Metrics [↗](#), a collaboration between industry and academia.

About Scopus

[What is Scopus](#)[Content coverage](#)[Scopus blog](#)[Scopus API](#)[Privacy matters](#)

Language

[日本語に切り替える](#)[切换到简体中文](#)[切换到繁體中文](#)[Русский язык](#)

Customer Service

[Help](#)[Contact us](#)

ELSEVIER

[Terms and conditions ↗](#) [Privacy policy ↗](#)

Copyright © Elsevier B.V. [↗](#). All rights reserved. Scopus® is a registered trademark of Elsevier B.V.

We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies.

RELX