

# INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH AND TECHNOLOGY



**IJERT** 

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Area of Interest: Phase transformation, Nanomaterials, micrstructural evolution, quasicrystals

**Gurulingappa M. Patil,** Instrumentation Technology Department, Visvesvaraya Technological University, Belgaum, Karnataka State, India

**Area of Interest:** Biomedical Instrumentation, Design of Data Acquisition and Signal Processing Hardware for Electrocardiography (ECG), Analysis of Electrocardiogram using Wavelets, Telemedicine during emergencies and follow-up using TCP/IP on LabVIEW.

Goutam Ghoshal, Department of Research and Development, Company: Acoustic MedSystem Inc, Savoy, Illinois,

**Area of Interest:** Biomedical ultrasound, therapeutic ultrasound, high-intensity focused ultrasound, signal processing, ultrasound imaging, computational mechanics, solid mechanics, image-guided intervention, acoustic, ultrasonic non-destructive testing, mechanical stress analysis

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Area of Interest: Materials/Machine Design/Composites

**Dr. T.R.Vijayaram,** Professor in Mechanical Engineering, SMBS, School of Mechanical and Building Sciences, VIT University, Chennai Campus, Vandalur-Kelambakkam Road, Chennai-600127, Tamilnadu, India

**Area of Interest:** Foundry Technology, Special Casting Techniques, Squeeze Casting Technology, Near Net Shape Manufacturing, Ferrous and Nonferrous Metallurgy, Powder Metallurgy, NDT, Materials Characterization, Mechanical Testing of Materials, Quality Control Engineering, Metal Matrix Composites, Polymer Matrix Composites, Advanced Manufacturing Technology, Metrology, Fluid Mechanics, Machine Design, Applied Thermodynamics, Heat Transfer, Tribology, Heat Treatment of Metals and Alloys.

**Dr. Mohammad Mansoob Khan**, Research Professor, Chemical Engineering, Yeungnam University, Geongbuk, Gyeongsan-si-712-749, South Korea

**Area of Interest:** Green synthesis of nanomaterials, Band gap engineering, Metal oxides, Catalysis, Photocatalysis, Sensing, Microbial Fuel Cells.

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Iffat Ara

## A Portable Architecture with an Interior Fashion Concept

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#### **Abstract:**

The complicated phenomenon of the clothing market competition has pushed the design of Indonesian clothing to replicate more global trends than to question creativity in fashion. The breakdown of the spatial concept in Indonesian clothing design is one of the drivers of the weakening of fashion quality, especially in terms of pattern, structure, and spatial relations. Though the relationship between the body, clothing, and the spatial environment has begun since the primitive concept of the development of clothing as body protect itself. A hypothesis was proposed to stimulate the relationship between the body, interior space, and architecture, by revisiting the etymological review and primitive concept of clothing as a scoping container as an interior antidote for the body and the potential of spatial clothing as an alternative to portable architecture. Experimental architectural methods are used for stimulating both craftsmen, fashion designers, interior craftsmen in order to enhance creativity in order to increase commercial value by; 1) Questioning the roots of fashion, interior and architecture etymologically; 2) Re-questioning the primordial concept of clothing; 3) Exploring relationships body, clothing, interior and architecture through personal space theory and body dimensions; 4) Reconstructing clothes as portable architecture. A finding refers to the potential of clothing as a second skin in a space within the radius of personal space, both of which can be synergized using craftsman tectonics to produce systems, connections, and architectural details. As a clothing hypothesis, it is not only attached to personality and character but also has the potential as an alternative to portable architecture. The fashion interior is a portable architectural space concept that can open itself to the environment and be an alternative to nomadic space in the future.

Keyword: Architecture, Fashion, Interior, Portable

#### 1. INTRODUCTION

Fashion market competition in Indonesia has given rise to fragmentation in the form of contrasting conditions between the upper and lower layers, a gap in the economic and social gap between craftsmen and fashion designers, increasingly steep. The fashion industry, like all creative industries [1], is characterized by a high level of uncertainty (e.g., [2, 3]). Communication between designers and craftsmen is limited to instructions and production, not to mention the portion of creativity which is very rare because some indie designers are oriented to replicating and modifying international designs that are easily found on the internet or are the result of shopping from abroad rather than looking for identity [4].

Fashion as a social phenomenon is not restricted to the domain of clothing and dress, but are also influenced by: "Music, drama, dancing, sculpture, painting, architecture, and interior [5]." This research not only wants to place clothing as a mediating medium but also takes the initiative to question the stagnation of Indonesian clothing that often runs in place and focuses on decoration and ornamentation through an exploration of primitive concepts of clothing related to the interconnectedness of the body, interior space, and architecture. Fashion and architecture were formerly developed as an object for body protection. Once space was created for the naked body, it was a buffer to avoid direct contact with the immediate environment [6]. Through the theory of portable architecture, fashion architecture, fashion interior, a common thread was found to be developed as a portable architectural spatial material to bring about the renewal of a wide range between clothing as personal space and architecture at the same time. Fashion is unavoidably a former space development, using the body as a human dimension, and utilizing craftsmanship to initiate a tectonic [6]. With the possibility of interdisciplinary cooperation, a connection stimulates collaboration between craftsmen, designers, and architects. An experimental media can be used as a tool of experimentation through the interior fashion prototype [7], plus this attraction not only questions the relation of both [8] but also bridges awareness [9] to share knowledge across disciplines.

Understanding of body and spatial relations is a representation to initiate questions and discussions [10] not only for researchers but also between craftsmen and designers at these locations. The purpose of development needs to question the extent to which innovations [8] have taken place between craftsmen and designers while investigating the meaning of spatial in everyday life and the global spatial of clothing. Research on the expertise of local craftsmen needs to elevate the status of craftsmen who emphasize craftsmanship. Therefore changing the currently passive to active interaction using prototypes as a medium because it directly touches spatial tectonics needs to be positioned as an important stage.

The concept of the body and spatial [9] is a primordial concept that has existed since humans protect their bodies from the violence and fierce weather while the history of clothing [8] provides evolution as a comparison. However, there is a finding of a disconnect between clothing and spatial, while implicit confinement always occurs in our daily lives. Clothing that is used for everyday life, for example, is very close to the interior and architectural materials, some of its applications are easily found to this day either in the form of decorative to structural.

The science of portable architecture, in this case, bridges the connectedness of the body both locally and globally [9] by visiting primitive thoughts about spatial both tents, carpets, screens, and tensils, for example, is a portable space that is attached to the body. While the future space requires ease of movement, personal space, and system integration are closely related to the primitive idea.

#### 2. MATERIAL AND METHODS

#### 2.1 Methods of Study

This research is a qualitative interpretative study by combining the combination of techniques, namely conventional and experimental architecture, bridging the intellectual gap between the crafters and designers so that they can communicate intensely through media in the form of textiles and fabrication [7]. Communication is carried out in a bottom-up manner with the aim of elevating the tectonic craftsman as a detail that becomes a system in portable architecture while exploring primitive collective memories about the connectedness of clothing and spatial past. Raise craftsmen in small industries through intellectual products to question the stagnation of clothing design [4], especially in producing spatial and clothing as the most basic layer.

By combining several different skills, namely interior design, architecture, cities, and working with experts from fashion design institutions, clothes are broken down and transformed into temporary spaces. Furthermore, through interdisciplinary cooperation [7], not only does every actor have the potential to gain new knowledge, but it can also use each other's networks to advance the design, craftsmen and enrich the spatial richness of Indonesian clothing with modern representations. The lack of craftsman knowledge needs to be supported by participating in producing new findings [10] so that the experimentation activities are not only centered on fashion design but also tectonic design [7]. To be able to construct arguments [10] between actors need to be aware of the gap between production and innovation, so that in the future translation of spatial and clothing gradually can continue and can be implemented.

#### 2.2 Theoretical Approach

Fashion is mode, namely the variety of both the latest ways and forms at a certain time. Fashion can be translated as clothes, hairstyles, decorative patterns, and more. Fashion can also be interpreted as a place with material clothing or produce or be a facility to try, measure, and equipment for the style of dress. While clothing refers to clothes as body coverings, fashion focuses on style and manner. Clothing is related to the process of wearing, affixing, using, and applying something on the body so that it covers the body with makeup; While fashion demonstrates intellectual products. Differences in fashion and clothing are not only distinguished by time and trends but also the intellectual quality of how to make, use, and interpret clothing independently of price and users.

Although the field of modern science separates fashion, interior, and architecture, the connectedness of the three is united by

space and body. However, before exploring interdisciplinary relationships, it is worth reviewing the literal meaning of the other two fields. The interior is the inside of a building or other space, can also be in the form of decorative furniture in the room or building while architecture is translated as the art and science of design and building construction and focuses on the methods and design style of building construction. But it is not mentioned if the architecture is the same as the building. Thus it can be interpreted if the interior is not only a part of the architecture or a building but in general, is a part of both product design and natural creations.

Today, the stagnation and demands of complexity drive the hybrid process among various scientific fields like Architectural Fashion, Interior Fashion, and Architectural Psychology. Hybrid science allows the fusion of two branches of science that are united to produce new thoughts and works by bringing together the wealth of each science. Portable architecture, for example, is the science of architecture that develops spatial move, move, transform. Inspired by the birth of a nomadic room and developed into spaces that are flexible, plastic, and elastic. The development of portable architecture is inseparable from theoretical considerations. Personal space is a virtual space imagined as an imaginary bubble in the science of architectural psychology. This virtual bubble is used as inspiration to build clothing spatial extensions as an extension of the second skin in humans. The experimental method on the body by doing an imaginary picture of personal space is done manually using a radius built from the core of the body [11] and implemented as shelter and protection of personal space (Figure 1).



Fig.1 Personal Space

Source:https://westsidetoastmasters.com/resources/book\_of\_body\_language/i mages/194-personal\_space.jpg

Clothing in this study became material that was studied by the extension of its territory as well as building enthusiasm to expand the static space in clothing to be dynamic [7] and to be portable. New systems and programs will be injected as a complement to everyday life from just providing a container for clothing [11] to become a new medium in spatial planning.

Meanwhile, tectonics will be developed to tie the system between clothing and its accessories so that it can form another connection when clothes are transformed into interior elements [7] (Figure 2).



Fig.2 Coat, Slow Fashion Fredrick

Source:https://s3files.core77.com/blog/images/fredrik\_coat\_01.jpg

To provide effective solutions to research activities, a method is planned to focus on the process rather than just targeting the final results. Avoid the complexities of using media that are foreign to craftsmen, a conventional method that can be accepted by all parties, combined with the process of architectural experimentation [7] using the body as the core of clothing development into architectural spaces. Guiding craftsmen with tectonic potential needs to be given space and gaps in creativity, especially through direct workmanship. Therefore, the process of manual experimentation is the language of communication between craftsmen, designers, and architects, which in this science are united by researchers to produce a prototype of a room built on the body itself [10] (Figure 3).



Fig.3 Wearable Workstation

 $Source: \ http://spacearchitect.org/portfolios/portable-wearable-work station/$ 

The researcher initiates communication using the media through direction, presentation, and builds the creation of questions with alternative answers that are tested directly on the body as a model for building spaces. Getting to know the body in forming personal space [11] can be in the form of material discovery, systems, concepts, including the implementation of new spaces [10]. With the formation of space that can be worn by the body, architectural space will be built on clothing (Figure 4), which can provide more use and image for its users later [7] and open up unexpected new opportunities for experiments conducted.



Fig.4 Walking Shelter

Source:https://i.pinimg.com/originals/1a/d6/08/1ad608628b2dfc72b8f344523a cd5712.jpg.

#### 3. RESULTS AND DISCUSSION

In the lay world of the notion of fashion often experience irregularities, the problem is fashion is often synonymous with the style of the dress rather than holding fast to the root of the word. Fashion is very closely related to the space of disintegration because of the general tendency of being attracted to the uniqueness of the style rather than the connectedness of the ways and processes of forming one's character and attitude through the making of the second layer of skin. Although fashion is often translated as a style of dress, etymologically, the root of the notion of fashion actually means the form (shape) and appearance as the root of this understanding. How to shape by making a dress to display one's character becomes important rather than the style itself (Figure 5).

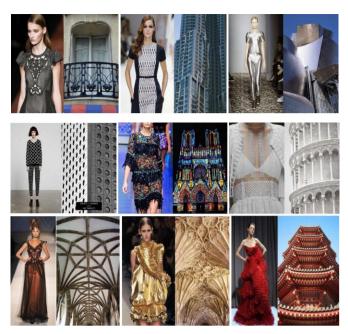


Fig.5 An inspiring relationship between fashion and architecture that often questions both hybrids

Source: https://mymodernmet.com/architecture-fashion-design/

The phenomenon of fashion that continues to evolve again raises the connection of fashion with architecture, both lifting architecture as inspiration, metaphors, or the development of fashion architecture as a hybrid; a design quality can be assessed based on the entrenched description. The word fashion that we know as a variety of clothing itself shows understanding in a manner that is the way, including the style of attitude for someone who points to the characters that indicate a person's quality. Therefore fashion is largely determined by fashion and its completeness in shaping, organizing, showing the accuracy of dressing in a certain place/space and time to show the quality of one's character. Furthermore, fashion is also related to the process and transformation of how to dress someone who displays character and conformity to the room so that it presents the way someone displays the quality of attitude and style. Thus, fashion has the potential to regulate, control the body and attitude and emphasize the character of someone or who wants to be highlighted when focusing on fundamental principles, namely: pattern, structure, and type of clothing.

However, to not recklessly interpret the object under study, it should be realized that the notion of fashion is distinguished from clothing that refers more to the cover material. Although the growth of fashion is related to clothing as a body protector/cover, fashion labels are related to intellectual quality and style, while clothing adheres to the basic functions to cover the body from the climate, including to uphold the norms of decency in certain places and locations. Thus fashion emphasizes intellectual quality in producing ways of making and the process of displaying one's character through styles and attitudes that are controlled through patterns, structures, shapes,

and styles of dress. While clothing is simply a body scope which is used as a second skin function governed by norms (rules, methods, or culture). In other words, not all clothes can be categorized as fashion, but fashion is always related to clothes. Therefore the material, order, composition, and ability of fashion need to be able to shape the attitude and manners of someone when wearing clothes in a span of time that determines fashion as a quality (Table 1).

Table 1 Difference between Fashion and Clothing

Descriptions	Fashion	Clothes
Development	The latest fashion trends follow	Varied clothing articles can be made of
	trends, are liked and complex	simple textiles, animal hair, and skin or a
	rather than practical. Developed on	combination of various materials to protect
	scientific logic and intellectual	the body and uphold the norms of
	reasons.	decency.
Complexity &	It is related to the complexity of	Functioning as a secondary skin, having
Characteristic	clothing as a spatial form: the	general categories and benefits, being
	development of the complexity of	generic can be mixed and used practically
	patterns, structures, materials,	for daily life but related to norms and
	details, systems for specific times,	traditions.
	and specific spaces.	
Categories &	Intellectual work can be in the	A scoop is a non-conductor to warm the
functions	form of art or scientific	body, protect from heat, wind according to
	discoveries, has the basic function	the character of its owner.
	of scope as protection, but	
	prioritizes its intellect.	
Production and	Launched as a collection, iconic	It is mass-produced as clothing needs to be
Value	works that aim to stimulate	aimed at people. Having an affordable
	thinking, knowledge and science	price can be found and obtained easily. It
	with specific goals and	is a replication, modification, and
	measurements and are not for	production from the general public and
	everyone to use or have a value or	made for general sizes.
	price.	

Source: Authors, 2019

#### 3.1 Interior Fashion

Although the meaning of the interior is etymologically associated with the inside of a building or space, the interior means the inner that is inside, or inter, or inside. This is related not only to the function of the inner space as protection, protection, asylum, or to avoid prejudice against the outside world. Related to fashion with the interior stems from the primitive concept of using natural materials as a direct shelter of the body against the weather and protecting vital organs. Variations in the use of cover material to shade and protect the body against the external environment, forming soft spaces and intimate boundaries between the body and the outside environment. It is this space that forms a personal space in the form of choices and procedures for a person to cover and protect themselves against the ferocity of the environment. These primitive concepts are then transformed into ways and models that shape a culture, including developing clothing as an ornamental style or make-up that can be distinguished between cultures, expanding the essence of actual clothing that begins to form an interior as a protection against the outside environment (Figure 6).

Fig.6 The concept of Clothing as Protection

Source:https://st2.depositphotos.com/3585787/6067/i/950/depositphotos\_60676865-stock-photo-beautiful-indian-young-woman-with.jpg, https://www.desertusa.com/images/Saharan-woman.jpg, https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcSXx1puEsMgcoKooq07N-gVMlo45s5UUwJTgzd5wVvSd1HCK-7t,
https://i.ytimg.com/vi/Iyv1vmqV8YE/maxresdefault.jpg

While fashion grows and shifts, offering a variety of dress styles, fashion as a function of clothing never loses its essence as a personal space that places the body in an interior space. The problem of local fashion stagnation that emphasizes the elaboration of decoration and detail as a work of art rather than focusing on how to organize attitudes and characters allegedly occurred because dictated by customer enthusiasm for the beauty that is decorative and ornamentation than the actual ability of fashion in controlling the environment and everyday processes. It is this global awareness that has given birth to a hybrid of fashion architecture as the knowledge that adds to the quality of fashion relationships in accommodating spatial or as much as possible rather than just focusing on the function of clothing as body decoration. Although some designers see architecture as mere inspiration, architecture has the potential to inject spatial value in developing the complexity of fashion. Spatial both interior as protection and exterior as body shelter can be regulated and controlled by architectural scholarship to restore harmonious relations between humans and humans, including humans and their environment through hybrids of fashion and architecture (Figure 7).

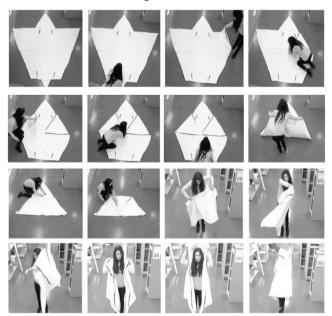
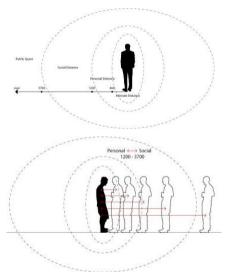


Fig.7 The RCA student project makes wearable shelters for refugees

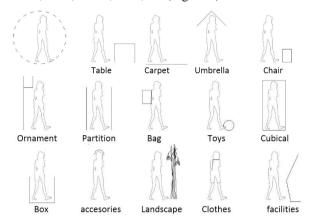
Source: https://www.architectsjournal.co.uk/news/rca-students-createwearable-refugee-shelter/10001962.article Focusing on the functions and essence of the spatial fundamentals, architectural science eliminates art as decoration and etymologically focuses on the science of designing construction as a place of activity. The formation of an architectural space spawned both outer spaces as well as inner space as protection (Figure 8). By ignoring the design style of building construction, architecture leaves an essential part of a structural nature that holds certain important shapes and compositions to form an attitude (gesture) towards the environment. When identified with a shelter to the body, architectural space is a certain material structure whose interior parts are used as a container to cover the body. The scope of the body, called fashion or clothing by the layman, corresponds to the user's body language when worn. Through tracing the history of fashion, architecture, and interior is not a stranger if the relations between them are often found. Hybrid science does not only enrich and strengthen other scholarship if with an open mind looking for gaps in the scientific stagnation. To offer another perspective of interior fashion as a portable architecture that traces clothing as the development of mobile spaces that facilitate movement and heed transformation so that nomadic spaces can be accommodated by flexibility, plasticity, and elasticity.



**Fig.8** Clothing is a Fiscal Sheath that Protects the Body from the Environment and Beauty

Source: http://maed-by.blogspot.com/2009/02/personal-space.html

Clothing in this context is an extension that is marked by the presence of a scope that can turn into a room for someone. An imaginary diagram for the development of soft personal space heeds the theory of radius measured from body dimensions. With the elasticity and plasticity of soft materials in the form of textiles, the findings reveal an unlimited potential that can be implemented beyond the essence of clothing as shelter and protection in personal space: accessories, furniture, systems, screens, fences, carpets, landscaping, partitions, decorations, ornaments, tents, tables, mats, etc (Figure 9).



**Fig.9** The Infinite Possibilities of Transforming Clothes as Personal Spaces into Architectural Spaces *Source: Authors, 2019* 

By opening clothes, folding, rolling, pinning, laying on, parting, hanging, binding as a large sheet in the form of a broad area; A birth extension can be born and controlled through certain scenarios. With planning based on patterns, structures, formations that are perforated on opportunities that are broken down and integrated into clothing designs, a novelty in producing new territories can be built to expand the static sphere of clothing into dynamic while still containing the basic properties of portable textiles. However, to complete and guarantee the program's regularity, functions, uses, meanings and models that are stable in the design of clothing as a form of portable architecture, the connection system, and programs need to be designed to use and transform so that new spatial media can be created which add opportunities for benefits for activities that are moving and nomadic. Some conventional tectonics on clothing can be developed as a way of binding, sticking, attaching, hanging, supporting, storing, so as to enrich other connectedness when clothing is transformed into an interior element for the user's body and environment (Figure 10).



Fig.10 Streetwear Systems and Details, Utility Wear, Techwear as Portable Architectural Inspirations

Source:https://cdn.fs.grailed.com/api/file/hHOciWffQZmNX84Pzsaz,https://cdn.sho
pify.com/s/files/1/1565/5947/products/product-image767103943\_1200x1200.jpg?v=1554893217,
https://ecs7.tokopedia.net/img/cache/200-square/product1/2017/7/14/20887476/20887476\_7b2ada94-4f0e-4b54-a66720d5c17aeda1\_542\_640.jpg

To complete the process of undressing to find unlimited spatial opportunities, a process for closing and locking clothes reveals other findings so that spacing is easy to carry as important. As an interior fashion that has the potential to become a portable architecture, the description of opening clothes to a room needs to be able to fulfill neatness into wearable fashion media without reducing the wearer's style and character (Figure 11).



**Fig.11** Experimentation Process *Source: Authors, 2019* 

The transformation of the area into a compact element that can be carried no less needs to be planned to become a whole clothing or clothing accessory that complements the appearance, various opportunities allow folding and locking this field into bags, jackets, coats, purses, robes, accessories. With this elaboration, a range can be generated with unlimited opportunities; however, a plan of the system and method of use can guarantee the stability of a form of spatial transformation within certain limits (Figure 12).



Fig.12 Research Experimentation Results

Source: Authors, 2019

#### 4. CONCLUSION

The phenomenon of connectedness with fashion and spatial has been born since clothes are used as scopes to protect the body from weather and beauty. However, the relationship between the two seemed to be broken because of problems at different concentrations of development and scientific fragmentation. Hypothesis based on the primitive concept of developing protection by using materials available around the environment has formed an interior to accommodate the body, giving birth to clothes and in the continued development of textiles had become an important part of the nomadic architecture closest to tent architecture. The findings were made by breaking down the backwardness of the primitive concept by undressing and utilizing its plasticity and elasticity to become a new spatial concept. A range of areas of clothing can be planned as a series of architectural spaces not limited to personal space activity programs based on body dimensions, while these areas can be tidied up and compacted again so that they can be moved or carried as portable architecture.

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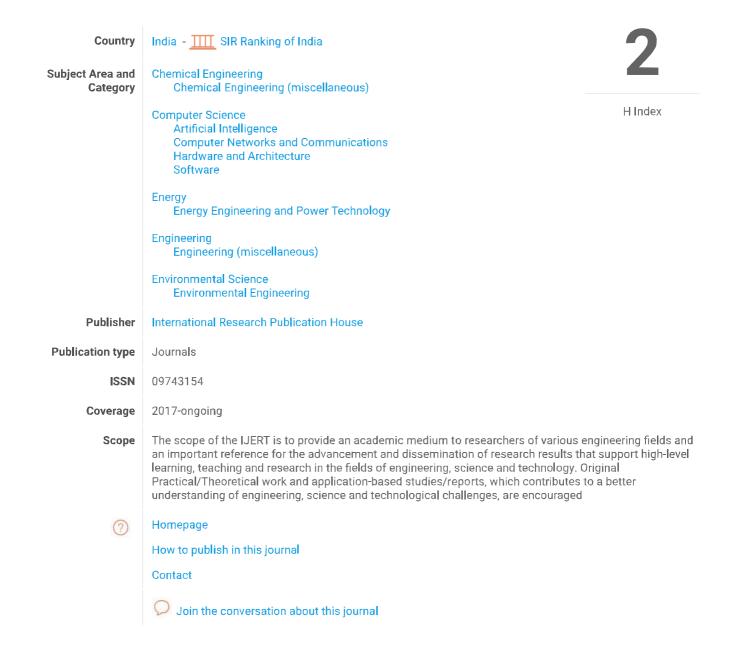
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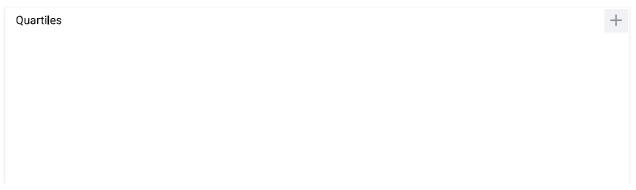
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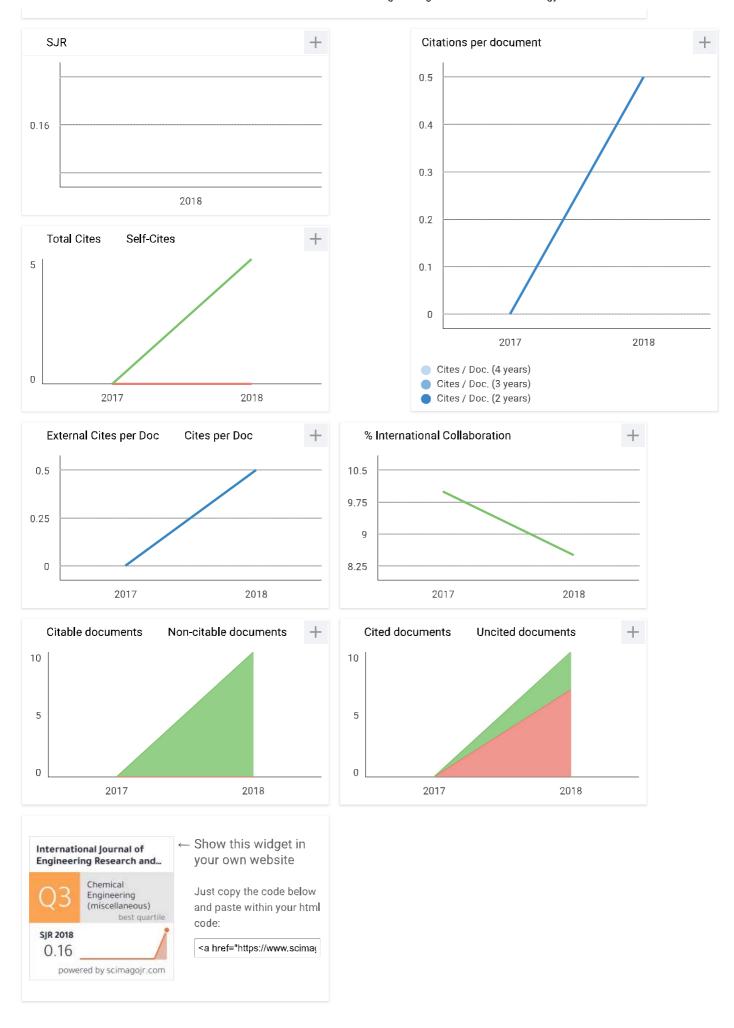
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General
Engineering

Energy
Energy
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