



# Self-Conceptualization and Multi Privileged Algorithm based Controller

Shivakumara T, Rajshekhar M Patil, Shantakumar B Patil

**Abstract:** *The paper proposes to reduce the workspace, provide users to work on multiple applications in a single domain, provide the security for associates and the privileged people by giving a single sign on authentication. It is very complicated to oversee various factors related as far as bigger associative working. It is very hard to keep up with various kinds of workability on the individual dimension. We are using AES and DES algorithm for the authentication purpose. The design is based on established technical specifications that have been taken for multi domain working, add the technological variations are required to be consolidated. Self-repulsive identity-based panel will help the companies to secure their workability with advanced implied methodology and with variations of governance that is provided with cloud support. The system will be more useful when large, complicated instance are required to be organized. The conditional understanding with the policies will be also supported which will be more helpful to organize that type of working orientations needed by a particular company. The system provides identity provisions for managing a particular appliance also so as to organize large working environment. The framework is synchronized such that may be utilized very well by the customers with the typical comprehension of innovation.*

**Keywords:** *identity-based, security, sign-on, self-repulsive*

## I. INTRODUCTION

The dynamics that are required to regulate multiple fold of resource standard can be properly established from a central working unit. To provide the specified privileges in terms of information security and other principles that are required to be followed when multiple integrated work force with various resources have to be established. The system provides all types of cloning for individual specifications of the clients as the need for Central service is required. The design of the system will provide well planned factorial specifics to accomplish essential consolidated working with various terms of workforce utilization, resource utilization, factorial incorporation, associations and statistical information.

The system acknowledges multiple Technologies on platform usage which can be easily established once the service orientation has been provided by the provider. Various types of hierarchies that are needed to be maintained when various paper implications are required to be organized can be established from a central point. System also provides all token establishments to ensure that policy and factor based security can be provided. To ensure proper understanding the factors that are provided is related with substantial guidance or guidelines so that is implementation is possible on the client side in terms of the complicated processes that are required to be undertaken add each and every factorial and factor options provided will be predefined with all the selective form based pages so that the inputs and collections can be provided by the client.

As the inputs are provided by the clients multiple categories can be added for the implementation of the particular rule that has been defined or even individual identities of our organization can be considered. Systematic approach to maintain all the working steps of an organization are defined with different types of functionalities included which can be individually selected and used. If a particular organization is not willing to use a particular option provided it can be skipped and other operation can be performed for example if a particular security inclusion is not needed it can be skipped. The implementation considerations will be self-defined and can be properly managed according to the individual requirements of the client and taking the services for example of a particular resource is required to be used it can be selected and incorporated in particular account.

The resources and the related work optimization from a central space will help the organizations to optimize their working as multiple vendors are included and easily all the types of Logistic challenges can be organized. The systematic valuation of the work with all types of statistics needed will be provided to the users with various formations and filters to get the exact information required. The system provides well defined working in variations of hierarchy and the accessibility control which will provide a significant controlled to the organization based on individual identity based on different teams. Standard lightweight directory protocol command system for the application log can be properly established to manage the sensitivity of the IT resources on the network working where individuals systems full communicate with the central system to get the trusted accessibility. The list of information can be organized in a hierarchy and individual systems will login to the server and with the help of the protocol different levels of accessibility will be provided. The rules are design in a way that it can be simplified for the implementation and the users and the teams incorporated can be easily managed from a central interface so at any time the control can be established.

Revised Manuscript Received on April 21, 2020.

\*Correspondence Author

**Mr. Shivakumara T\***, Asst. Prof. Dept. of MCA, BMS Institute of Technology & Management, Affiliated to Visvesvaraya Technological University, Karnataka State, India, shivakumarat@bmsit.in.

**Dr. Rajshekhar M Patil**, Professor, Department of CSE, School of Engineering, CMR University, Karnataka, India, pvsrml@gmail.com

**Dr. Shantakumar B Patil**, Professor, Department of CSE, Nagarjuna College Of Engineering and Technology, Karnataka, India, shanthakumarbpatil@gmail.com

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an [open access](http://creativecommons.org/licenses/by-nc-nd/4.0/) article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

The policy option is also help to establish the control in a desired fashion as different types of inputs can be provided from a central page by the administrator to govern the entire Network and Organization work force. The Identity Federation that is provided will be acknowledged by the system in real time with all standards to be followed. The system also provides the replicated authentication with the help of multiple machine identification methods which is also supported to provide higher end self-defined structuring if required by the client. Adaptive access system will be provided in

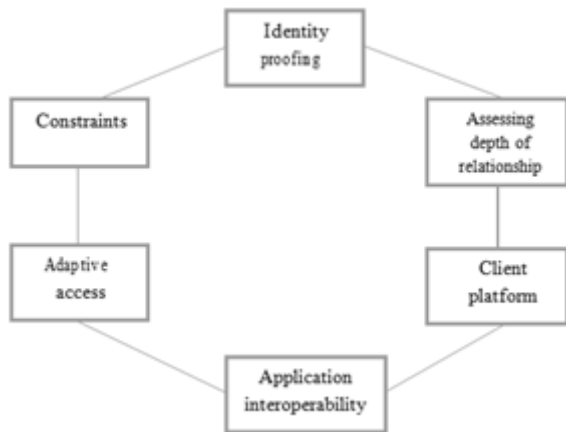


Fig. 1 How interoperation ability waste resource

terms of the resources where are self-service option will be provided from which the request can be incorporated to get the resources needed with direct vendor communication. Detailed environment matrix can be achieved with a simple click by providing the requirements as the system keeps on multiple Matrix report for better understanding of the entire working within the organization.

The above figure shows that how the ability of interoperation waste the resource will be provided on a service platform with all identity proofing and other constant management options so that central mechanism can be achieved with secure large organizational working management.

**A. Problem Formulation**

To provide the users with the central activity platform as the system will help them to provide different activities so for each activity the workability accuracy has to be undertaken.

**B. Scope and Objective**

Lots of compliance standards and different situations related to security can be centralized with a well define working processes which will be a benefit for the organization

Centralization is the main objective in terms of work flexibility and global skill support so that any organization can use it in a define fashion. System can be used in different work as multiple functionalities are provided which can be used accordingly so we can say that system provides multi-functionality working on a larger scale with all sensitivity requirements

**C. Methodology**

Selected SDLC is agile methodology which will be used as it will provide better transparency and all types of cost and schedule predictions are properly associated where is even with the help of the agile methodology the changes that are required in regards to the features can be properly organized and it also provides use of focused workability. If the system provides multiple functionalities and in the future

more options can be added, we have to apply agile methodology.

**II. LITERATURE SURVEY**

**A. Existing System**

The analysis of multiple client for the drawback specifications in terms of define methodologies and policy has been conducted and we found that inclusive architecture management with multiple workflows requires multiple resources, teams, data structuring, security, control accessibility, report etc. which will be managed and organized with the help of various expertise and when the resources which is quite difficult as individual perceptions are required to be acknowledged. We have outline the detailed references that has been analyses and are listed as following which will be taken for proposed system design development.

- Security needs with different base methodologies cannot be centralized to organize various environments and platforms in the existing system making it quite complicated to manage different factors associated in terms of larger organizational working.
- Resources and the referential associations that are needed to maintain different types of workability in a particular organization or within multiple bunch of environment it's quite difficult as it is maintained on the individual level.
- Policy requirements cannot be maintained on a input based structuring for the entire work force from a solitary page in the current framework.
- Centralizing the work of entire organization through a service based platforms not possible with different work channel working at the same time in the existing system which indeed requires multiple environment and work channel management by the organizations.
- Service and the direct integration for self-service based resource inclusion is not provided in the existing system and all references will be undertaken according to the requirements with detail setup.
- Work centralization with data integrity and accessibility on individual perceptions is not possible and it's quite difficult to organize as different teams in individuals have different requirements.
- Machine based security in terms of biometrics and other factor securities cannot be managed in a hierarchical fashion in the existing system from a single console in various resources are required.
- Working acknowledgements require multiple expertise as overall multiple activities has to be managed in different regards in a particular organization making it expensive work.
- Hierarchy control from a central space is not supported as various factors are included
- Data in terms of organizational working and control for the report generation is also based on individual perception and activities making it quite complicated to filter the required information for the control and management.



**B. Proposed System**

The problems faced and as listed above in the existing system is taken into deep consideration to design a system that can provide an alternative to the organizations in a way where all aspects of working can be customized and a systematic approach in terms of security can be provided. The proposed system is well established in a way where multiple vendor partnership will be seen to provide various types of working resources and collaterals required where is the design of application is to provide a self-oriented multiple security formations according to the Criterion and according to the mechanism that is required to be followed by a particular client.

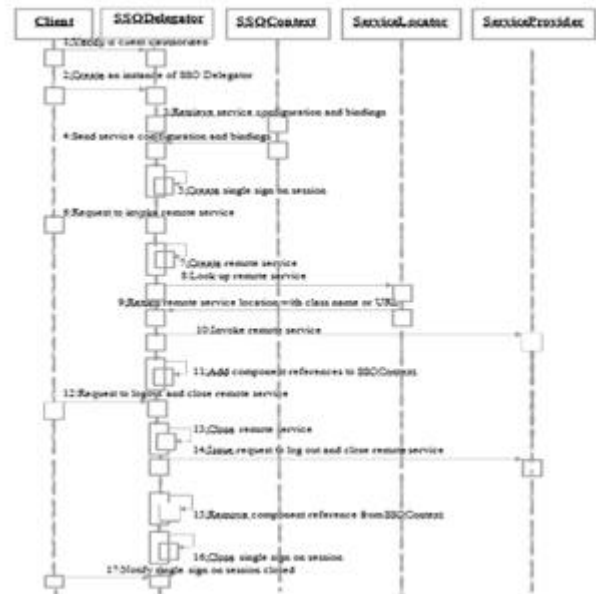
The proposed system provide multiple working features some of them are listed as following-

- Utilities in a distributed format with various work culture support provided from a central space as multiple when the integration will be incorporated which will help various types of organizations to have associated work.
- The requirements in terms of rules that are required to be implemented on the work force that will be integrated will be acknowledged from central space by selective inputs which will be set up by the administrator of particular organization so it will provide the flexibility of control to regulate the policy.
- The techniques that are required in different variations of organizational working will also be added which can again be selected and when a particular option will be selected guidance system will be provided as structures are predefined.
- Complicated structures are incorporated at one place to provide the work flexibility and better understanding to the client.
- Proposed system will be cost effective as multi variation of working will be included add a particular account service has been taken various selective options can be used.
- To have more reflex and to have more understanding of the overall distributed working a detailed tracking system is included which can be used by the authenticated administrator to learn and understand the work matrix.
- The working organization required adaptability in terms of multiple team integration the proposed system will provide a base space which can be used directly for the working and for incorporating the resources required.
- Hierarchies are supported with individual security implementation as various methodological options can be systematically included on the individuals and teams.
- All customization support is provided including self-service option where the request to the director wonder working can be sent apart from which all aspects of working and branding can be organized on the preferences of a particular organization.

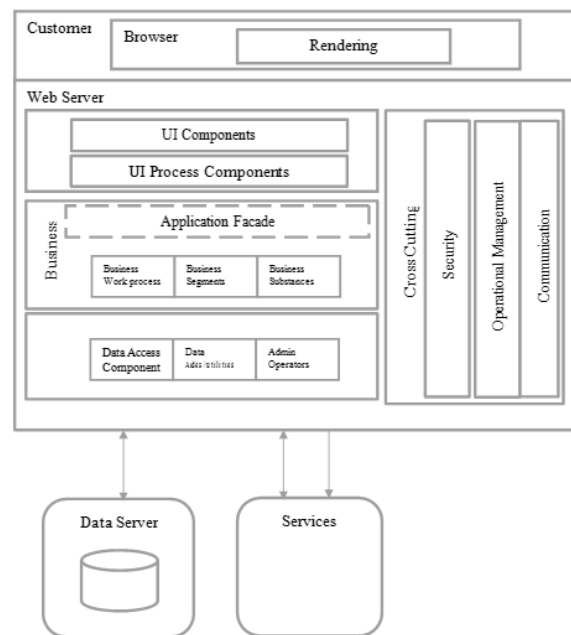
**III. SYSTEM DESIGN**

This paper describes approximately the system perspective of the proposed framework. It depicts about the interplay between database and modules. This paper involves architecture system, data flow diagram and context diagram of the proposed system.

**A. System perspective**



**Fig. 2 Sequence Diagram**



**Figure 3: Architecture diagram**

**IV. DETAILED DESIGN**

Detailed configuration is the piece of executing the proposed framework where it depicts about the design part of the system. It includes the collaborations between the instructions, and the activities recognized within the system. This paper incorporates the use case outline, sequence graph, activity chart, ER diagram and database scheme of the proposed framework.

**IV. IMPLEMENTATION**

This paper while the hypothetical plan wound up onto the working machine.



This can be very well may be the best significant in examining a productive new contraption on providing an individual, conviction that the new structure will work and be convincing. Utilization paper entails investigation and planning of the present framework and it's necessities on execution, strategies and organizing.

5.1 Screen Shots

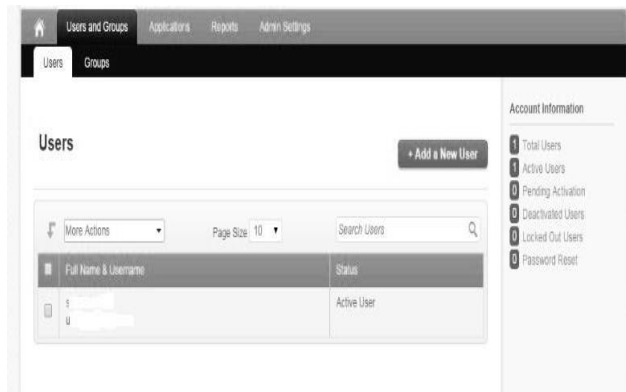


Fig. 4: User's Management

In user field administrator can include another user, can search users by their full name or by username. In the right side corner this page contain matrix information which is named as account information that shows the total number of users added, All out number of users signed in or active, who are not logged in yet, who are deactivated, locked out users and password reset.

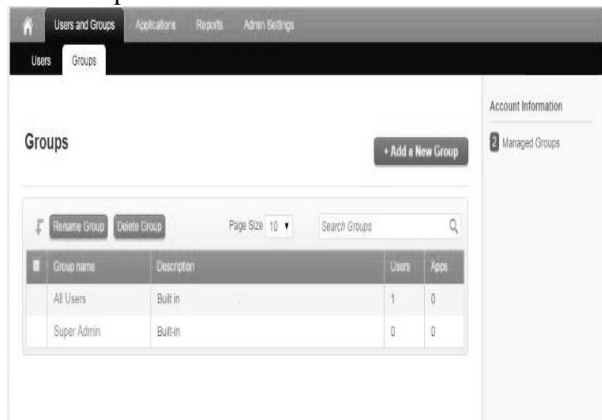


Fig. 5- Defining Different User Group

In the groups page admin can add groups or admin can divide the multiple users into single group to provide or assign them some work like testing, documentation, coding, designing etc.,. Admin can search group by the group name, can delete the group and can rename the group. In the right side corner this page also contains account information where admin can know how many groups are managed.

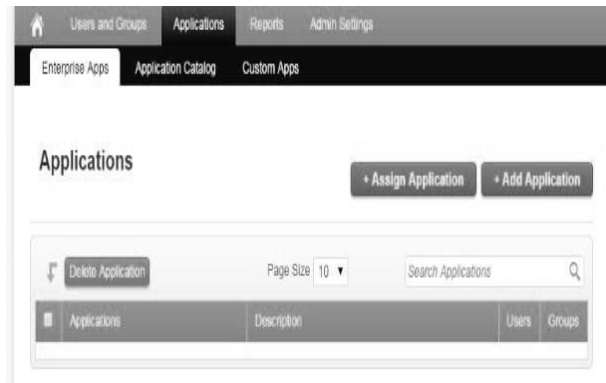


Fig.6: Resource Allocation and Selection

In application page we have three fields in that one is enterprise apps which contains the selected tools or applications from the application catalog field will be saved under this. Admin can delete application, can add applications and can assign applications directly to the users and groups.

Application Catalog

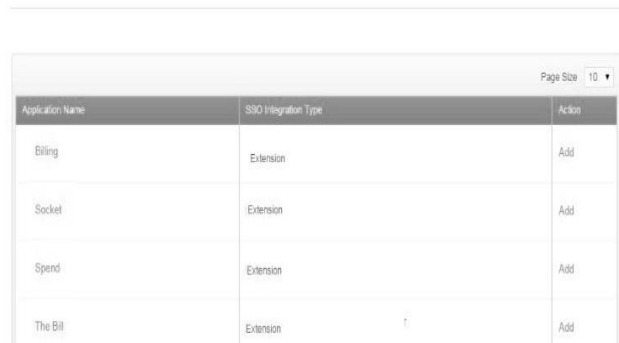
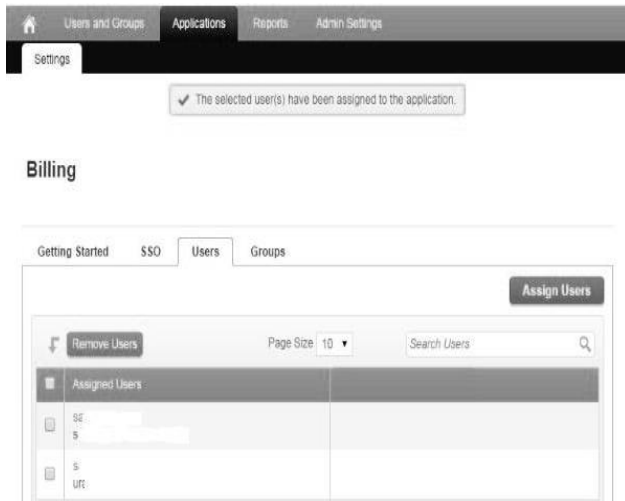
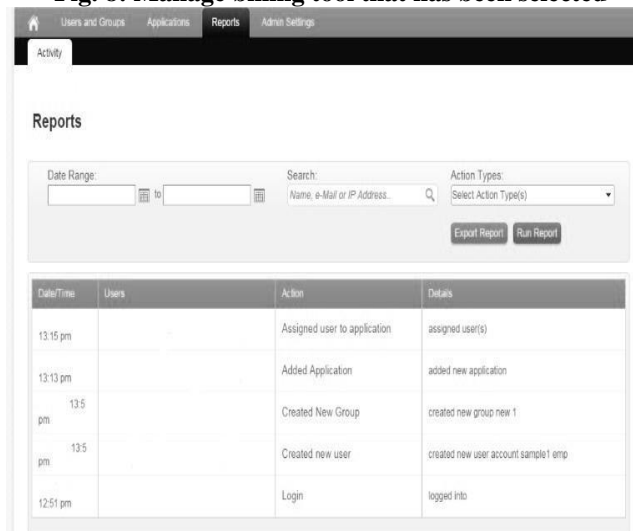


Fig.7: Browse resource for the usage

In this page we can see application catalog field where some application are provided to the client as per their requirements that will be shown under this with application name, SSO integration type, and action. The one more field we can see under application page is custom apps, here admin can request for the particular application that he needed which is not provided in the application catalog. By taking billing from the application catalog we can see getting started, SSO, users and groups. Getting started is used to know the features of the software. SSO is used to do one time login and no security process will be asked. In user they can assign applications to the users, can search users and can remove users. In group they can assign applications to the group, can search group by group name, can remove group. In the below report page shows the generated reports which is structured by the system. Admin can search the report by the date range from – to, can search by user name, email id or by IP address and can also search by the type of action. The selected report can be exported i.e., sharing.



**Fig. 8: Manage billing tool that has been selected**



**Fig.9: Report generation**

## V. RESULT

The sensitivity of data that is more important for the organizations these days due to more security threats that involves and the data leak is required to be handled properly. For the proposed design we found that everything synchronized in a way that it can be used by the clients with a normal understanding of a technology. Easy process formations and synchronization is included. Flexibility is provided to the clients by including multiple types of features related to the corporate working. Multi security processing can be involved. Multiple workforce involvement is supported. Multiple policies in fusion supported and can be properly implemented from central control system.

## VI. CONCLUSION

The rise of cloud communication and intended market on a global scale is taken into consideration for the development of the system as it can handle larger organization requirements for the implementation of different types of corporate activities and the related factor security has been taken into consideration. The sensitivity of data that is more important for the organizations these days due to more security threats that involves and the data leak is required to be handled properly. As we have seen the system we found that all processes required for an integrated implementation

of working is provided in a way that it can be used according to the organization need and practically it will be quite cost effective for the organizations as according to the collateral usage the charges are undertaken. Due to the usage of the system on a global scale based on different types of accounts and accessibility rights the digitalized working will be enhanced and will be quite flexible as all the control will be centralized for the organizations from the customized rule implementation based on security to the related collateral usage and even in terms of the guidelines that are required to be implemented in terms of the policies for the larger work force. All types of working considerations can be properly processed and for the detailed references inbuilt working input forms are provided. Implementation of the policies are quite easier and even the related methodology required to be incorporated are made in a way that it should be simple for the clients as the complications of multiple integrated system involves in the existing scenario which have taken into consideration

## FUTURE ENHANCEMENT

Enhancement is much needed as the contribution in terms of the component acknowledgement provided by the system will be on a large scale with multiple Global clients working at the same time including multiple types of working methodology so proper service investigations are required to be done, and the design of the system can be modified with more inclusion requirements. So, all the points that are taken for the consideration are as follows. Involvement of more collateral on self-service by including more clients in the future. Including more advanced reporting with more filters in report types for better control. Including more references and collaborations in terms of workforce management.

## ACKNOWLEDGEMENT

I would like to thanks to my research supervisors, my colleague Mr. Muneshwara M S for their continuous support. I also thanks to the persons who are directly or indirectly helped to achieve in writing this article. And also thanks to my college Management, Principal and HoD, MCA, BMSITM.

## REFERENCES

1. Java Platform, Enterprise Edition (Java EE).
2. Oracle Technology Network. Oracle. December-18-2014.
3. "Java-One 2013 Review: Java Takes on the Internet of Things". Archived from the original on April-19-2016.
4. <https://en.wikipedia.org/wiki/MySQL>
5. <https://www.scribd.com/book/375674864/Java-Platform-Enterprise-Edition-Java-EE-Complete-Self-Assessment-Guide>

## AUTHORS PROFILE



**Prof. Shivakumara T.**, working for Department of MCA, BMS Institute of Technology and Management, Bangalore as an Assistant Professor since 2008. He has completed his masters' degree (Master of Computer Applications) in 2007. Teaching the masters' degree computer applications courses prescribed by Visvesvaraya Technological University (VTU). Actively involved in teaching-learning process, as an outcome of it he was able to publish 3 text books, laboratory manuals,

learning materials in coordination with co-authors in the same field. He has published few national conference papers and journals. His current research focuses on data and information security - data leakage prevention. He has been engaged to create awareness on cyber security-cyber safe Karnataka in association with cyber security center of excellence, Government of Karnataka, to school and college students. He is the member of ISTE chapter. Currently, pursuing PhD in Computer Applications under VTU.



**Dr. Rajshekhar M. Patil** is a Professor and HoD of IT, CMR University, Bangalore. He served as Principal in an Engineering College affiliated to Jawaharlal Nehru Technological University, Hyderabad. He has worked in the capacity of Assistant professor to professor and shouldered responsibilities from HOD to Principal and

Director. He has also worked as a customer support engineer and handled many clients. His area of research interests are computer networking, information and network security, cryptography, data communication and networking and Network Data Mining etc. He has published several research papers in reputed Journals. He holds B.E. and M.Tech. in Computer Science from Gulbarga University and Visveswaraya Technological University respectively. He obtained Ph.D. in Computer Science from Dr. MGRRI, Chennai.

He is a recognized research guide in Visveswaraya Technological University, Karnataka and is a reviewer of many national and international journals and conferences. He comes with an experience of over two decades in teaching and was working with Guru Nanak Institute of Technology prior to joining CMR University.



**Dr. Shantakumar B Patil**, working as Professor in Nagarjuna College of Engineering & Technology. He obtained his B.E degree in Electrical & Electronics Engineering from Karnataka University Dharwad in 1993 and M. Tech in Computer Science & Engineering from VTU

Belagavi in 2002. He obtained Ph. D degree from Dr. MGR University, Chennai in 2011. His areas of interest are Data Mining, Artificial Intelligence, and Formal Languages & Automata Theory. He has 24 years of experience in teaching and published twenty Research papers in National / International Journals and conferences. He is recipient of BEST TEACHER award twice, when he was in MVJ College of Engineering and has received BEST PAPER awards in National and International Conferences across the world. He is guiding five Research Scholars for Doctoral Degree. He is Life member of ISTE, CSI and member of IEEE.