

Innovation is taking two things that **exist** and **putting** them together in a **new way**.

-Tom Freston
Chief Executive Officer of Viacom Inc

Criterion - 3

Research, Innovations & Extension

RIOI		Research, innovations and Extension					
	List of QL and QN Metrics for Appeal						
SI. No.	Criterion No.	Criterion Description					
QL M	letrics for Ap	<u>peal</u>					
1	Institution has created an ecosystem for innovations including incubation centre and other initiatives for creation and transfer of knowledge						
2	3.4.1	Extension activities in the neighborhood community in terms of impact and sensitising students to social issues and holistic development during the last five years (NSS/WEC/Blood donation/Social clubs etc.,)					
QN N	letrics for Ap	peal					
3	3.4.2	Number of Awards and Recognition received for Extension Activities from Government /Recognized Bodies during the last five years					
4	3.4.3	Number of Extension and Outreach programs conducted in collaboration with industry, Community and Non- Government Organisations through NSS/NCC/Red cross/YRC etc., during the last five years					

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3.2.1 | Ecosystem for Innovations (1/6)

Industry Linked Laboratories & Centres of Excellence for Placement & Training

No. of Industry Linked Labs (ILL)	Centre of Excellence for Students Training and Placement				
12	07				

Dept.	Activities Conducted	Student Projects	Internship by ILL/CoE	No. of Students Placed through ILL/CoE
MECH	38	01	28	66
ECE	44	09	33	25
EEE	42	07	02	20
CSE	45	16	24	74
Civil	09	15	04	02
Total	178	48	91	187

- ✓ Virtusa Data Analytics Lab
- ✓ Aspire Systems Software Technology Lab
- ✓ Harita Tech Serv Limited CAD
- ✓ IAPMO HVAC
- ✓ LEED LAB Collaborated with USGBC
- Texas Instruments Innovation Lab
- ✓ Remote Sensing & GIS collaborated with SAKURA
- ✓ Intel IOT Research Lab
- ✓ Big Data Advanced Analytics Lab
- ✓ CCNA Networking Lab
- ✓ Oracle Academy Oracle ilearning Lab
- ✓ IEEE Blended Learning Program in VLSI
- ✓ e-Yantra Embedded Systems & Robotics Lab in connection with IIT – Bombay
- ✓ Mission10X Technology Learning Centre
- ✓ National Instruments LabVIEW Academy
- ✓ Industrial Automation Genn Automation Powered by SIEMENS
- ✓ Embedded Systems Design and Development –
 ABE Semiconductor
- Mixed Signal Processing Laboratory –
 Gill Instruments
- ✓ Centre for Foreign Languages

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3.2.1 Ecosystem for Innovations (2/6)

Make-A-Product (MAP)

Dept	No. of Student Product Developed	No. of Products Participated in Contest	No. of Awards Won
MECH	359	01	02
ECE	440	09	39
EEE	30	07	10
CSE	26	16	02
Civil	10	15	08
Total	865	48	61





Quest Ingenium Contest Won 2nd Runner-up

A Novel Method for Enhancing Power Efficiency of Solar Panel

Awards; Highlights

- ✓ Texas Instruments India Innovation
 Challenge Design Contest
- ✓ IIT Bombay e yantra Ideas
 Competition
- ✓ GE Edison Challenge Contest
- ✓ Quest Ingenium
- ✓ Solar Urja Lamp Contest by IITB
- ✓ **IEEE MAS** Best Student Project
- ✓ National level Aero Design Challenge organized by SAE India
- ✓ SAE SUPRA

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3.2.1 | Ecosystem for Innovations (3/6)

Students Innovative Projects

S. No.	Product Details	Applications	
1	Kernel Peeler Machine	Food Industry	
2	Quadcopter UAV Based Fertilizer and Pesticide Spraying System	Agriculture	
3	Self-Supported Knee Physiotherapist	Medical Field	
4	Centralized Apartment Automation Product	Automation	
5	Soil Tester	Agriculture	
6	Agribot 1.0	Agriculture	
7	A Novel Method for Enhancing Power Efficiency of Solar Panel	Renewable Energy	
8	Poultry Farming Bot	Poultry Farm	
9	Life Protector Robot for Child in the Borehole	Environmental Safety	
10	Advanced Line Following Robot using Bar Code Addressing Techniques	Medical field	



Life Protector Robot for Child in the Borehole



Paper Crete Brick



Agribot 1.0



Poultry Farming Bot

3.2.1 | Ecosystem for Innovations (4/6)

Innovation and Incubation: Major Activities

- ✓ Entrepreneurship Educators Program
- ✓ KIOT ETS (Entrepreneur Technopreneur Startupreneur) Meet 2020
- ✓ Thinnai (Entrepreneur Experience Sharing Session)
- ✓ Product Pitching
- ✓ Idea to Business Workshop
- ✓ Ozhimayam Boot Camp (Startup)
- ✓ Entrepreneurship Awareness Camp Sponsored by DST, Govt. of India
- ✓ Residential Startup Boot camp



Entrepreneurship Awareness Session



Entrepreneur Experience Sharing Session



Ozhimayam Boot Camp (Startup)



Entrepreneur Technopreneur Startupreneur Meet 2020

3.2.1 Ecosystem for Innovation (5/6)

Entrepreneur Details

No. of Entrepreneurs: 30 last 5yrs



Mr. K.Karthik Raja **Alumni EEE 2016**MADique Technologies, Salem



Low Price Food Making Machine







Mr. S.Vivek

Alumni ECE 2013

Proprietor

ViVi Electronics, Salem and Chennai.



Providing Solutions for LED, Solar Systems, Energy saving Fans, Security Solutions.t



LED Energy Saving Products

3.2.1 Ecosystem for Innovations (6/6)

Research, Publications, Patents, PhDs Produced

Academic Year	2020-21	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	Total
No. of Programs Conducted Related to Research	01	05	06	06	15	06	05	43
Grants Received (Rs. in Lakh)	22.58 L	10.71 L	0.47 L	0.56 L	2.34 L	0.58 L	5.5 L	42.75 L
Journal Publications in UGC Listed Journals	ı	09	07	04	08	14	67	113
Conference Publications	-	10	01	80	44	100	45	280
Patents Filed 07						07		
Research Supervisors	MECH – 05	ECE - 01	CSE - 01	EEE - 02	S&H - 01	MBA - 01		11
No. of Scholars Completed PhD (KIOT Supervisors)	MECH – 10	ECE - 04	CSE - 04	EEE - 07	-	1		25
No. of Scholars Pursuing PhD (KIOT Supervisors)	MECH – 15	ECE - 04	CSE - 04	EEE - 05	-	MBA - 06		34

3.4.1 Extension Activities (1/6)

Societal Clubs and Forums for Holistic Development

No. of Extension
Activities
(Per Year)

15 to 19

Students
Participations
(Per Year)

75% to 95%

National Service Scheme (NSS)

Youth Red Cross (YRC) & Red Ribbon Club (RRC)

Rotaract Club

Junior Chamber International Club (JCI)

Green Club

IEEE Student Branch - Societal Activities



Blood Donation Camp

Major Activities Organized Impact and Sensitizing Students to Social Issues and Holistic Development

- ✓ Blood donation camps
- ✓ Road Safety Awareness
- ✓ Tree Plantation
- ✓ Medical awareness programs
- ✓ Cleanliness Activities (Schools and Temples in and around Kakapalayam through NSS Camp)



Tree Plantation

3.4.1 Extension Activities (2/6)

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Societal Clubs and Forums - Glimpses



Tree Plantation in Govt. Hospital, Vembadithalam



Eye Camp Vembadithalam Panchayat



Cleaning Activity in Govt. Primary School, Vembadithalam



Computer and English Classes for Govt. Primary School, Vembadithalam

Unnat Bharat Abhiyan (UBA)

KIOT Adopted 5 Villages

1. Kanagagiri

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- 2. Kandarkulamanickam
- 3. Vaikuntam
- 4. Ariyampalayam
- 5. Perumagoundampatti



- ✓ Village Survey and Household Survey Completed
- ✓ 6040 Households Surveys are Covered









Conduction of Free Homeopathy Medical Camp

Village Survey and Household Survey

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3.4.1 Extension Activities (4/6)

Major Societal Activities by IEEE Student Branch

- ✓ Technology Dissemination activities for Rural and Urban Schools
- ✓ KIOT Pilot Institution and organized the International Preliminary Project Competition for school students @ KIOT, and shortlisted students for finals @ Thailand (IEEE YESIST'12 on 16/07/2019)
- ✓ IEEE SIGHT (Special Interest Group on Humanitarian Technology) to organize the activities for underserved communities and local organizations to leverage technology for sustainable development
- ✓ KIOT IEEE Student Chapter has won

 Best Student Chapter Award

 for Consecutive 9 years from IEEE-MAS







Received Best Female Leader during IEEE SIGHT



IEEE SIGHT Camp-2016



Technology Dissemination activities for Rural and Urban Schools

3.4.1 Extension Activities (5/6)

PMKVY: SKILL TRAINING TO THE SOCIETY

Offering training to enhance the employable skills and to create awareness on entrepreneurship to the Public

- √ 328 persons were trained as Sales Associatives
- √ 15 rural women were trained in Tailoring Course.



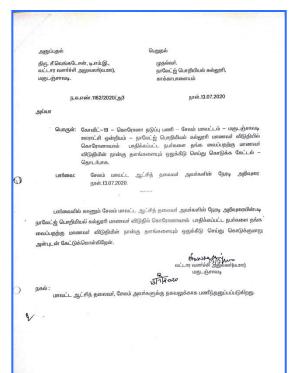
Tailoring Course

Sales Associate Level-4

3.4.1 Extension Activities (6/6)

COVID-19 Service

- Allocated the Entire Gents Hostel for Quarantining
- Duration: July 20, 2020 to Sep 10, 2020
- Maximum: 154 members





Awards for Extension Activities

- Awarded and Recognized for Outstanding Contribution and Participation during Global Student Solar Ambassadors Workshop by IIT Bombay
- Mr. Connect A National level Best Performing Rotract Club award by Rotract Club, Gujarat
- Certificate of Appreciation Best Performance in Youth Red Cross (YRC) Movement





COVID-19 Appreciation Letter