# Rajiv Gandhi Institute of Technology Kottayam

Presentation to ABC

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- Review of College
- Department of Mechanical Engg
- Industrial Engg & Management
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# **College Information**

- Owned by Government of Kerala, celebrating 'Silver Jubilee' in 2015-16.
- Vast campus with 67 acres of land.
- Affiliated to APJ KTU / MG University.
- 6 UG, 7 PG and 2 PhD programmes.
- NBA Accredited UG programmes, TEQIP and QEEE institute.
- Ranked amoung the top five state engineering colleges, Rated 'Outstanding' (2<sup>nd</sup> best in Kerala) by RECCAANIT, Graded AAA+ by Careers 360.

# Courses

Dept	UG (B.Tech)	PG (M.Tech)	Research (PhD)
Electrical	BTech	Industrial Drives & Control	Research Center
Mechanical	BTech	Industrial Engg & Management	
Civil	BTech	Transportation Engg	Research Center
Electronics	BTech	Advanced Communication & Information System; Advanced Electronics and Communication Engg	
Computer Science	BTech	Computer Science & Engg	
Architecture	BArch		

# Highlights

- Infrastructure: Independent blocks for department, Latest lab facilities
- B.Tech programmes have been NBA accredited for 3 years (w.e.f Jan 2016)
- Quality Faculty: 22 PhD holders, Ave. 12 years experience
- Centers & Projects: KTU Cluster Lead Institution, CERD, TEQIP (Phase 2), DST
- Professional bodies: IEEE, SAE, IIIE, EEA, IAS
- International Faculty interactions: Abudhabi, Singapore, Canada, China, USA, Italy, Japan, Switzerland, Malaysia

#### > Outcomes:

- Good number of University ranks each year
- 60-70% placement from eligible candidates, 2 in Civil Services
- More than 100 Publications in Conferences and Journals, 2 Books, 2 Patents
- 9 MoUs, 4 Startups (within campus), 4 Startups in Startup Village

# **U.G Admission Ranks (State Merit)**

	Year of Admission			
Диодиатто	2012	2013	2014	2015
Programme	First-Last	First-Last	First-Last	First-Last
Civil Engineering	2915- 6690	3082-7913	3476-6046	2083-5003
Computer Science	1343-4780	1491-6103	2066-7977	1456-5224
Electrical Engineering	2267-4651	1105-5700	1613-5100	1008-5948
Electronics & Communication	734-5982	882-3887	1162-3723	1192-5774
Mechanical Engineering	478-2593	1104-3395	1139-3359	744-3515

# **University Rank Details**

Branch	2013-14	2012-13	2011-12	
EC	B.Tech II Rank M.Tech I , II & III Rank			
CS				
ME	M.Tech Ist Rank & III Rank	M.Tech I & II Rank	B.Tech First Rank, M.Tech I , II & III Rank	
CE	M.Tech I , II & III Rank		B.Tech First and Second Rank	
EEE	M.Tech I, II & III Rank	M.Tech I , II & III Rank	M.Tech I , II & III Rank	

# **Campus Placement**

Microsoft

- Oracle
- ► IBM

Infosys

- > Wipro
- > TCS
- UST Global
- Larsen and Toubro
- ≻ HCL

Accenture

- ► IBS
- SunTec

MRF

- Shapoorji Pallonji
- South Indian Bank

➢ Idea

≻ ELGI

- Mphasis
- > Lister
- Verizon
- > NeST
- > AQ
- QBurst
- TATA ELXSI

> 180 students placed in 2016

# Recruiters

# **Idea**













Shapoorji Pallonji & Co. Ltd



ENVESTNET'

MRF

Empower your practice

## **Recruiters**

ELGI

Think Long Run

Analytics Quotient

# HCL

Burst

TATA

TATA ELXSI



ARSEN & TOUBRO



webone



TO ENGINEER

SunTec

Nest



# **RIT Alumni**

<u>Public Sector</u> IPS (Govt of India) Irrigation Dept (Govt of Kerala) ISRO and VSSC (Trivandrum) Kerala Productivity Council (Kochi) Kerala PWD, KSEB, BPCL, BHEL, HAL

#### **Private Sector**

Mircosoft, Oracle, TCS, Infosys L& T, Volvo, MRF, Reliance, Daimler, V-Guard, Entuple, GE, Siemens, Lamprell Energy Ltd Nest, Tata Elxsi, Bosch

Educational Institutions: RIT (Kottayam), METS (Mala), AJCE (Kanjarapally), SCMS (Kochi), SGITS (Kottayam), MEC (Ettumanoor), KITS (Kottayam), CoE (Kidangoor), CoE(Alleppy), SBCS (Kayamkulam) Higher Studies (MTech, PhD) IIT, IISC, NIT, CUSAT, Pondicherry University, Kerala University, Hyderabad University, University of Southern Queensland Australia

# **Mechanical Engineering**



## Achievements

## (Academics, Placement, Higher Studies, Startups)

- > **NBA accredited** for 3 years w.e.f 1/1/2016.
- Academics: Was one among two teams from Kerala selected for the main event of Efficycle, SAE India.
  - Secured 1st prize in Auto Quiz, SAE India Students Convention.
  - Secured 1<sup>st</sup> prize in automobile prototyping, Indian Institute of Technology Kanpur.
  - Secured 3<sup>rd</sup> prize in National Mechanical CAD design context, SAE Tier-3 Competition.
  - Skills: Design using CATIA/ANSYS/SOLIDWORKS/MATLAB, Rapid Prototyping, CNC machining

**Good projects**: 1 patent, 3 published papers

## Achievements (Academics, Placement, Higher Studies, Startups)

- > **Publications:** more than 60 conference and journal publications over past 5 years.
- Core Placements: TATA Materials Bangalore, TCS (EIS), MRF, Al Adrak Oman
- Higher studies: MTech (Design Engineering) IIT Delhi, MS (AeroSpace) University of Buffalo US, MS (Mechanical Engineering) University of Southern Queensland Australia, MTech (Materials) NIT Trichy, MS (Mech Engg) Huston University, MS(AeroSpace) Beijing University
- Startup: Rinine Engineering Pvt. Ltd. started, first of its kind in Kerala, focuses on design and development, runs in Department of Mechanical Engg

## **Technology Business Incubation Center**

Four startups in core engineering fields are presently working from within the campus. Prominent among them, started by Mechanical Engineering students, is Rinine Engineering Pvt. Ltd. currently serving the design, analysis and prototyping requirements of both local and oversea clients.



# **Lab Facilities**

- . Heat Engine Lab
- 2. Heat Transfer Lab
- 3. CAD/CAM Lab
- 4. Fluid Mechanics Lab
- 5. Hydraulics Lab
- 6. Measurement Lab
- 7. Mechanical Engineering Lab
- 8. Refrigeration & Air Conditioning Lab
- 9. Industrial Engineering Lab
- 10. Ergonomics Lab
- 11. Mechanical Workshop



#### CAD-CAM Center



#### New CAD/CAM Lab



Machine Shop



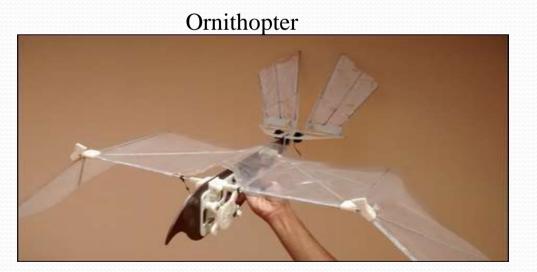
Heat Engines Lab



Mechanical Workshop

## **Academic Projects**

- The Projects undertaken by students included many design, analysis and fabrication works in aeronautical, automobile and marine using high end softwares like CATIA, SolidWorks, ANSYS, Matlab etc.
- > They also undertake CFD analysis.



#### Anthropomorphic robotic hand



# **Academic Projects**



Unmanned Areal Vehicle



Wing in Ground Effect Craft

Gyrocopter

Efficycle



# Industrial Engineering & Management



# **Course and Outcome**

- Started in 2005, Interdisciplinary, GATE qualified students
- Specialized training in Industrial Engg Lab, Software Lab, Ergonomics Lab
- Software exposure: SPSS, MATLAB, MS Project, Witness, CATIA, MATLAB, MVTA
- Industry Exposure through 'Industrial Training' (2-3 months) and 'Industry Projects' (6 months)
- Average Faculty experience is > 20 years
- Industry exposure/Projects/Consultancies: RUBCO, ISRO, FPI-OEN, EASTERN CONDIMENTS, TELK, KMML, STAR PIPES, KEL, MALABAR CEMENTS, KAL, HLL, KERALA STATE CONSTRUCTION CORP, PKC, AUTOCAST, IRE, NATPAC, NTPC

# **Course and Outcome**

- > 60 journal and conference publications in past three years
- held 3 conferences
- held > 15 Industry Experts Sessions

# **University Rank Details**

2013-14	2012-13	2011-12
M.Tech 1 <sup>st</sup> , 3 <sup>rd</sup>	M.Tech 1 <sup>st</sup> , 2 <sup>nd</sup>	M.Tech 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>

# **MTech Alumni**

<u>Public Sector</u> IPS (Govt of India) Irrigation Dept (Govt of Kerala) ISRO and VSSC (Trivandrum) Kerala Productivity Council (Kochi) Private Sector MRF (Kottayam) V-Guard Industries Ltd (Kochi) Entuple Bangalore Lamprell Energy Ltd (UAE) TCS (Trivandrum)

Educational Institutions: RIT (Kottayam), METS (Mala), AJCE (Kanjarapally), SCMS (Kochi), SGITS (Kottayam), MEC (Ettumanoor), KITS (Kottayam), CoE (Kidangoor), CoE(Alleppy), SBCS (Kayamkulam) Higher Studies (PhD) NIT, Calicut CUSAT, Kochi Pondicherry University Kerala University



- RUBCO Kottayam
- Centre for Nano science and Nano Technology, M.G University

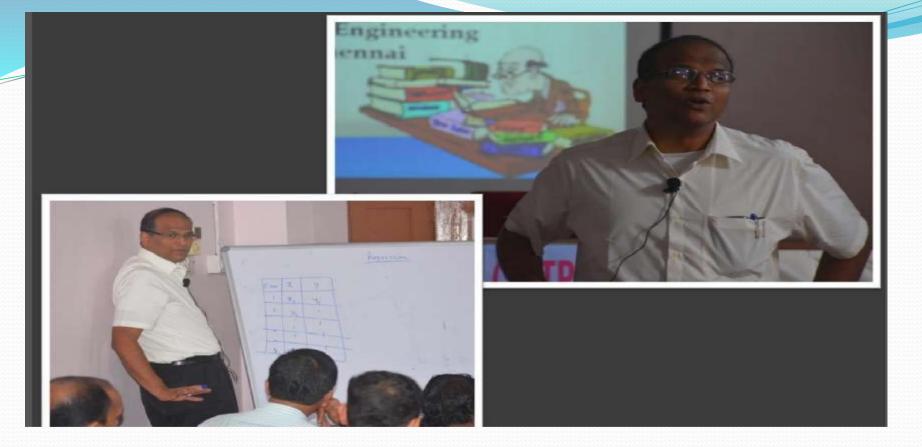
MoUs

- Irrigation Department of Kerala, Govt of Kerala
- Tropical Institute of Science, Kottayam
- Cranes Software, Bangalore
- Entuple Technologies, Bangalore
- Poornam Vision Software Ltd, Cochin
- OTTOTRACTIONS, Empanelled Accredited Energy Auditor, Bureau of Energy Efficiency, Government Of India
- C-DAC( Centre for Development of Advanced Computing) Trivandrum

# **Expert Lecture Sessions**



Prof. John Abraham from Purdue University, USA handling session on STTP on Computational Techniques for Engineering Analysis



#### Prof. C. Balaji, IIT Madras handling a session during STTP on Optimization Methods and Application

Mechanical Engineering



Prof. Srinivasan, IIT Madras handling a session during STTP on Research Avenues in Operations Management

# RITEXPO 2016











- Start new courses: M.Tech (Engineering Design)
  M.Tech (Mechatronics)
- Start Research Center (Mechanical Engg)
- Start Center of Excellence in Ergonomics
- Focus on Thrust Areas: Design

Industrial Engineering Energy

# THANK YOU