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## RV Educational Institutions <sup>®</sup> RV College of Engineering <sup>®</sup>



Autonomous Institution Affiliated to Visvesvaraya Technological University, Belagavi Approved by AICTE, New Delhi

# BRIDGE COURSE

An Initiative By

# IQAC

# **RV College of Engineering®**

# Bengaluru-560059

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July - August, 2022 Overview On Fundamentals of

> Physics Chemistry Mathematics Electronics Computer Science

# In UG Programs of

ENGINEERING

# **Resource Persons**

- Faculty members, Department of Basic Sciences and Engineering, RV College of Engineering.
- \* Special lectures by resource persons from academia and industry.

**Registration details** 

Registration Fee: ₹500/- + GST Click here for Registration

https://forms.gle/NXdbDrjbGhWDjRRq7

2<sup>nd</sup> Batch Programme will commence from 8<sup>th</sup> August 2022

# Programme Highlights

- Fundamental capabilities like analytical programming skills shall be imparted.
- Courses designed are preparatory courses that student to seamlessly transit to higher education.
- Uplift the confidence level of the students.
- Certificate shall be issued to all successful students completing Quiz and Assignment.
- Soft copy of the training materials will be shared to students after completion of the programme.

# This unique programme

- Bridges the gap between the fundamental courses studied and future course of engineering.
- \* Develops the students' analytical and computational skills.
- \* Enlightens on the Basic Science foundations required for the engineering courses.
- \* Gives a glimpse of the professional courses to take in order to succeed in a particular course.



# **Advisory Committee**

**Dr. K N Subramanya** Principal, RVCE

**Dr. K S Geetha** Vice Principal, RVCE

**Dr. Shanmukha Nagaraj** Dean Academics, RVCE **Dr. B V Uma** Dean Student Affairs, RVCE

# BRIDGE COURSE 1<sup>st</sup> BATCH-AT A GLANCE (18-22, July 2022)



# Challenges

Many areas in academia and industry depend on basic sciences and engineering to open up new frontiers and advance research. The ideas, theories and skills that we tend to learn from the books have vast applications in real-life. Challenges faced today by academia and industry are so complex that they can only be solved through the help and participation of scientists and engineers. Therefore, it is necessary to find out these subjects to know its varied applications and significance.

## Outcome

- Prepare for the courses of first year engineering programs.
- Provide the confidence and skills to successfully transit to professional institutes.
- \* Equipped with the knowledge and the confidence needed to take on bigger challenges.
- \* Exposure to college life in a structured and supportive learning method
- Recognize key terms and ideas in academic contexts within in the student's field of interest.
- \* Exposure to RV College of Engineering ambience its learning environment.

# **RV** College of Engineering

RV College of Engineering (RVCE) is established in 1963, an Autonomous Institute and affiliated to VTU, Belagavi. The institution is managed by Rashtreeya Sikshana Samithi Trust (RSST) a non profit Trust. The trust runs over 25 institutions and RVCE is the flagship institute under the trust. RVCE is today recognized as one of India's leading technical institution. Currently, the institution offers 13 Bachelor, 14 Master Degree programmes and Doctoral Studies and 15 departments have research centres, affiliated to VTU Belagavi. The institution has set a Vision "Leadership in Quality Technical Education, Interdisciplinary Research; Innovation, With a Focus on Sustainable and Inclusive Technology". Ranked 77th in the Country by National Institutional Ranking Framework (NIRF: 2019-20), QS-IGUAGE-Diamond University Rating (2021-2024), "Engineering College of the Year-2021" by the Higher Education Review Magazine, Ranked 13th in the country & 2nd in Karnataka - IIRF Ranking (2021). All the UG programs and eligible PG programs have been accredited multiple times by NBA.

The College currently has student strength of about 5600, faculty strength of more than 340, Technical & Administrative Staff of 230 and about 250 Research Scholars are pursuing Ph.D. The institution has over 75 licensed modelling, analysis and simulation software along with high-end computing infrastructure. Most of the faculty members are involved in funded projects in the niche areas of IoT, cloud computing, Biotechnology, Robotics, and Mechatronics. This way, their knowledge base has been enhanced. The institution has to its credit over 50 filed patents, 47 published patents, 9 granted patents. The institution has established various Centres of Excellence / Competence in the campus.

# 2<sup>nd</sup> BATCH PROGRAMME SCHEDULE From 8<sup>th</sup> August 2022

DAYS	11:00 AM to 1:00 PM		2:00 PM to 4:00 PM
MONDAY	Mathematics	В	Computer Science
TUESDAY	Mathematics	R	Computer Science
WEDNESDAY	Electronics	Ε	Chemistry
THURSDAY	Physics	Α	Electronics
FRIDAY	Physics	K	Chemistry

# Instructions

- \* Enter your Gmail ID in the registration form, it will be used for all correspondence related to the programme.
- WhatsApp group of students will be created to facilitate information about the programme.
- Programme will be conducted in offline mode and attendance on all the days and all sessions in given time are mandatory.

# Contact

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## Prof. Veena Gadad

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# **Innovative Clubs**

#### **Ashwa Racing**

Ashwa Mobility Foundations (AMF) is a student R & D platform that designs and fabricates Formula theme race cars and future mobility solutions to tackle urban transportation problems.

#### **Astra Robotics**

Team involved in the design, fabrication and building applications specific robots.

### **Coding Club**

To facilitate the skills, confidence and opportunity to change their world using coding and help them become successful in GsoC, AGM-icpc and other recognized coding competitions.

### **Entrepreneurship Development Cell**

E – Cell is a student run body that aims to promote entrepreneurship by conducting workshops, speaker sessions and discussion on business and its aspects. We possess a mentor board to help startups grow.

#### **Frequency Club**

Team aims at contributing in both software and hardware domains mainly focusing on Artificial Intelligence, Machine Learning and its advances.

#### Garuda

Design and Development of super mileage urban concept electric car. Indigenous development of E – mobility products.

#### Ham Club

To popularize Amateur Radio as a hobby among students, alongside exploring technical innovations in the communications domain. Intended to provide human capital for service to the nation at times of natural calamities.

#### **Helios Racing**

Team involved in design manufacturing and testing of All Terrain Vehicles and other supportive tasks for the functioning of the team. Participating in BAJA competitions organized by SAE in India and the USA.

#### Jatayu

Build a low cost unmanned Aerial Vehicle capable of Autonomous Navigation, Obstacle Avoidance, Object detection, Localization, Classification and Air Drop of a package of optimum weight.

#### Solar Car

Build a roadworthy solar electric vehicle in order to build a green and sustainable environment.

#### **Team Chimera**

Building a Formula Electric car through Research and Development in E – mobility, Electrifying Formula Racing.

#### Team Antariksh

Team Antariksh is a Space Technology Student Club, whose goal is to understand, disseminate and apply the engineering skills for innovation in the field of Space technology, designing Nano – Satellite payload for ISRO PS4 Orbital platform, RVSAT – I along with developing experimental rockets of various attitude.

#### **Team Hydra**

Developing autonomous underwater vehicles and use it for various real world applications such as water purification, solid waste detection and disposal etc.

#### **Team Krushi**

Developing low cost equipments, which help farmers in cultivating and harvesting the crops. Use new technology applications to reduce the labour time hand cost for formers and also aims at developing implants for tractors.

#### **Team Vyoma**

Design, fabrication and testing of radio controlled aircrafts and research on various types of unmanned aerial vehicles.

#### **Team Dhruva**

Organizing activities like quizzes based on astronomy. Stargazing and telescope handling sessions. Construction of a standard observatory. Working on projects with organizations like ICTS, IIA, Aries etc.

# **Centers of Excellence/Competence**

- 1 Centre for Automotive Mechatronics
- 2 BOSCH REXROTH RVCE Centre of Competence in Automation
- 3 Centre of Excellence in Macroelectronics
- 4 CISCO-RVCE Centre of Excellence in Internet of Things (IoT)
- 5 Centre of Excellence in Computational Genomics
- 6 Centre of Excellence in Smart Antenna Systems & Measurements (SASM)
- 7 Centre of Excellence for e-Mobility (Greaves Cotton)
- 8 Center for Quantum Information and Technology [CIRQuIT]
- 9 Center for CCTV Research
- 10 Centre for Education & Digital Learning Research (CEDLR)
- 11 Centre for Hydrogen and Green Technology Research
- 12 Samsung R&D Institute India (SRI-B) PRISM Program
- 13 Centre for Smart City Technologies
- 14 Centre for Logistics and Supply Chain Management
- 15 Centre for Visual Computing
- 16 Centre for Supply Chain Management
- 17 CoE in Women in Cloud
- 18 CoE in Cognitive Intelligence Systems for Sustainable Solutions
- 19 Centre of Competence in Software Skills

