GALGOTIAS RESEARCH GROUP

CORE TEAM

KUSHAGRA SINGH [HEAD], 2016-2020

APURVA SONI, 2016-2020

RISHABH MAURYA, 2016-2020

OWAISH SABIR, 2016-2020

SHAILAJA SINGH, 2016-2020

TEAM of Batch: 2016 – 2020

KUSHAGRA SINGH	**APURVA SONI**	**RISHABH MAURYA**
DAMINI KALRA	**PRATEEK VERMA**	**OWAISH SABIR**
SHAILAJA SINGH	**MANU CHOUDHARY**	**ANSHUL SINGH**

DURGA YADAV	YUVRAJ DEWANGAN	SHIVAM CHAUHAN

RESEARCH PUBLICATIONS

1. Kushagra Singh, Apurva Soni and Rishabh Maurya: **'Valve Controlled Automatic Opto-Hydroponics System'** – International Conference on Mechanical and Energy Technologies (ICMET 2019) [IOP Science].

2. Apurva Soni, Rishabh Maurya and Kushagra Singh: **'Angular Flame Hybrid Stove with Auto Align Base Frame'** – International Conference on Mechanical and Energy Technologies (ICMET 2019) [IOP Science].

3. Rishabh Maurya, Kushagra Singh and Apurva Soni: **'Energy Production from Mechanical Stress, Thermal and Wind Power'** – International Conference on Mechanical and Energy Technologies (ICMET 2019) [IOP Science].

4. Apurva Soni and Kushagra Singh: **'Smart Water Purification Technique'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

5. Damini Kalra, Kushagra Singh and Apurva Soni: **'Sensor based Crop Protection System with IOT monitored Automatic Irrigation'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

6. Owaish Sabir, Prateek Verma and Kushagra Singh: **'Electrically Controlled Artificial System for Organic Waste Management Using Black Soldier Flies with IoT Monitoring'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

7. Shailaja Singh, Manu Choudhary and Kushagra Singh: **'Solar Powered Medic Vending Machine'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

8. Anshul Singh and Kushagra Singh: **'Drone Ambulance'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

9. Yuvraj Dewangan, Durga Yadav, Shivam Chauhan and Kushagra Singh: **'IOT Based Patient Health Monitoring Portable Kit'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

10. Damini Kalra: **'Automatic Crop Protection system with IoT configured Irrigation'** – International Journal of Emerging Technology and Innovative Engineering (ISSN: 2394-6598) Volume 6 Issue 7 (July 2020).

PATENT PUBLICATIONS

1. Kushagra Singh: **'SMART PHOTO-HYDROPONICS GREENHOUSE INCUBATOR'**
   Published on 26/06/2020 [202011023382]

2. Apurva Soni: **'HYBRID INDUCTION GAS SMART STOVE'**
   Published on 19/06/2020 [202011006607]

3. Shailaja Singh: **'RFID CONTROLLED SOLAR FIRST-AID VENDING MACHINE'**
   Published on 19/06/2020 [202011006606]

4. Rishabh Maurya: **'WATER HARVESTING AND MULTIPLE ENERGY HARVESTING SYSTEM'**
   Published on 19/06/2020 [202011006608]

INDIVIDUAL PROJECTS

1. Kushagra Singh and Apurva Soni: Co-ordinated in Internship cum project implementation on **'1.5 KW BIO-GAS POWER PLANT DESIGN, INSTALLATION AND COMMISSIONING'** – Galgotias College of Engineering and Technology (March 2018).

2. Kushagra Singh: **'Home Security System using self-designed Atmega 16 microcontroller'** – JCBRO Labs (May 2018).

3. Kushagra Singh: **'RPi Based Distance Measurement System'** – JCBRO Labs (July 2018).

4. Kushagra Singh: **'Heavy Duty Fire Fighting Robot'** RoSMa2018 - ISRC (International Student Robot Competition) Dr. M. Sreekumar (Organising chair) -IIITDM, Kanchipuram.

5. Apurva Soni: **'Human Following Robot'** – JCBRO Labs (May 2018).

6. Damini Kalra: **'Waste to energy'** – Guided Project at IL&FS – Gazipur (2018).

7. Durga Yadav: **'Traffic Light System'** using PLCs – Cetpa (April 2018).

8. Kushagra Singh: **'Automatic Solar Irrigation System with Feedback Control'** – (August 2019).

9. Kushagra Singh, Apurva Soni, Rishabh Maurya and Shailaja Singh **'Implementation of Home Automation using IoT'** – Galgotias College of Engineering and Technology (2019).

10. Yuvraj Dewangan: **'Floor Cleaning Robot'** (September 2019).

11. Yuvraj Dewangan: **'Smart Dustbin'** (December 2019).

12. Rishabh Maurya and Kushagra Singh: **'Conglomerate Energy Accumulation System'** (736_7_1588846211) – Facility for Low Carbon Deployment (FLCTD) under Waste Heat Recovery challenge 2020, [United Nations Innovation Network].

13. Shailaja Singh, Apurva Soni and Kushagra Singh: **'Solar Powered COVID PPE Vending Machine with Auto Space Conditioning'** (736_8_1590861141) – Facility for Low Carbon Deployment (FLCTD) under Space Conditioning challenge 2020, [United Nations Innovation Network].

14. Kushagra Singh: **'Smart Photo-Hydroponics Incubator'** (736_9_1590939126) – Facility for Low Carbon Deployment (FLCTD) under Pumps & Pumping Systems 2020, [United Nations Innovation Network].

TEAM of Batch: 2017 – 2021

Eeshaan Dutt	**Aman Gupta**	**Shalini Rathour**
Tushar Biswas	**Riya Singh**	**Rishabh Srivastava**
Abhishek Kumar	**Gunjan Chaudhary**	**Chinmay Chaturvedi**

Abhishek Rai	**Pratyusha Sharma**	**Ritika Nigam**
Gauransh Singh	**Sanskriti Sharma**	**Rishabh Kumar Mishra**

RESEARCH PUBLICATIONS

1. Eeshaan Dutt, Aman Gupta, Shalini Rathour and Kushagra Singh: **'Touch-less Home Automation System with Voice and Gesture Control'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

2. Tushar Biswas, Riya Singh, Rishabh Srivastava and Kushagra Singh: **'Autonomous Robot to Perform Touch-less Assistance for Doctors'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

3. Abhishek Kumar, Gunjan Chaudhary and Kushagra Singh: **'Touch-less Temperature Detection and Disinfection System for Industries'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

4. Chinmay Chaturvedi, Abhishek Rai and Kushagra Singh: **'Autonomous Disinfection Robot'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

5. Pratyusha Sharma, Ritika Nigam and Kushagra Singh: **'Automatic Waste Segregating and Sanitising Dustbin'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

6. Gauransh Singh, Sanskriti Sharma, Rishabh Kumar Mishra and Kushagra Singh: **'Security System for Railway Crossings using Machine Learning'** – International Conference on Advances in Computing, Communication Control and Networking (ICAC3N 2020) [IEEE].

INDIVIDUAL PROJECTS

1. Eeshaan Dutt: **'IoT based Globally Accessible system using Node Red'** (August 2019).

2. Chinmay Chaturvedi, Abhishek Rai, Abhishek Kumar, Gunjan Chaudhary and Eeshaan Dutt (Mini Projects guided by Kushagra Singh 2019-2020):

   i. Monitoring of Temperature and Gas Data through Solar Powered LoRa Transmitter-Receiver System
   ii. Home Automation using NodeMCU and Blynk app
   iii. Voice Controlled Home Automation using Bluetooth module
   iv. Distance detection using ultrasonic sensor
   v. L293D motor driver guided robot car
   vi. Obstacle Detection using IR sensor
   vii. Soil moisture detection using soil moisture sensor
   viii. Smart dustbin
   ix. Automated Traffic light system

3. Gauransh Singh: **Face recognition Analytics for Law Enforcement Agencies** (June 2020).

TEAM of Batch: 2018 – 2022

Ankur Shukla	**Faiq Jamil**	**Abhinav Singh Patel**
Utkarsh Singh	**Aakash Srivastava**	**Abhinav Singh**
Mehul Yadav	**Isha Agarwal**	**Aman Sharma**
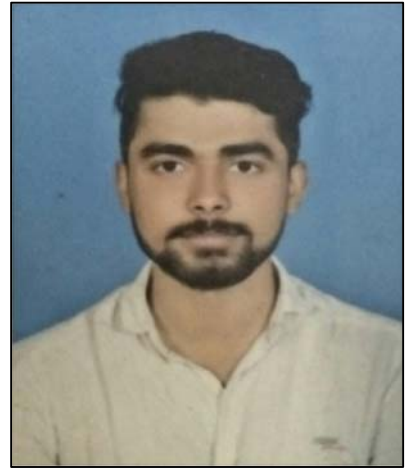
INDIVIDUAL PROJECTS

Guided Projects:

1. Ankur Shukla and Faiq Zamil: 'Line Following Robot' (Feb 2020).

2. Abhinav Singh Patel: 'Clap Switch using IC 555' (Feb 2020).

3. Utkarsh Singh and Aakash Srivastava: 'Voice Controlled Robotic Car' (Feb 2020).

4. Abhinav Singh: 'Panic Alarm Circuit' (Feb 2020).

5. Mehul Yadav and Isha Agarwal: 'Fire Fighting Truck' (Feb 2020).

6. Aman Sharma: 'Street Light Using LDR' (Feb 2020).