



ರಾಜೀವ್ ಗಾಂಧಿ ಆರೋಗ್ಯ ವಿಜ್ಞಾನಗಳ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಕರ್ನಾಟಕ, ಬೆಂಗಳೂರು

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RGU/EXAM/CIR/CAMERAS/2024-25

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## CIRCULAR

### Sub: Installation of Face-recognition cameras and Audio-Video Streaming cameras inside the Examination Halls.

The Rajiv Gandhi University of Health Sciences has been continuously striving to implement new reforms in its examination procedures in order to uphold the sanctity, accountability, and transparency of the examination process. This is because the manner in which exams are administered has a big impact on the quality of education being offered. In keeping with these initiatives of exam reforms, the RGUHS is now planning to introduce facial recognition technology for students while entering the examination halls and also to implement audio streaming of examination halls along with video streaming, representing yet another important step in examination reforms.

Hence, the examination centres are hereby advised to review the specifications enclosed with this circular and make sure that they have the necessary number of cameras installed in accordance to the specifications within three months from the date of this circular. Enclosed herewith is the procedure that colleges shall adhere to in order to enrol students' faces into the University web-streaming site.

If you have any questions or concerns in this regard, you may contact the technical team by dialling helpline numbers 8688401089, 8688401090, 8688401091 to obtain technical guidance when implementing audio video streaming and face recognition cameras in the examination halls.

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REGISTRAR(EVALUATION)

To  
The Director/Dean/Principals of  
Colleges affiliated to RGUHS

Copy to:

1. PA to Vice-Chancellor/Registrar/Registrar(Evaluation), RGUHS
2. Office copy

## Requirements from college for student facial enrolment to detect impersonation

Below are the steps to be followed by college to enroll student's faces into University Webstreaming portal:

- Each college will be responsible for facial enrolment of their students.
- Every college will be given one login id to enroll their student's faces
- College user has to login into the system using those login details to enroll the faces (System should have a web camera for enrolment – preferably USB web cam)
- The following data is required for each student:
  1. Name of the student: -
  2. Registered ID (Unique): - (should not have spaces in between).
  3. Mobile No (Unique): -
  4. Email Id (Unique): -
  5. College Name & College Code are fixed for each college and will be updated by the system automatically.
- There are 2 ways of entering the details of student's details.
  1. Using pre-defined excel format
  2. Entering the details manually directly into dashboard

### **Student Enrolment Process**

- Authorized person from college will login into the system and go to the people enrolment page. User will see two options - to import details or add a person
- Using Excel import:
  - First fill details of all students in the excel sheet in the pre-defined format.
  - Ensure all data is correct before starting to import.
  - Click on import and select the excel file that contains student data.
- Using Manual entry of student data:
  - Select Add person option (clicking the + symbol) and enter the details of a student.
  - Repeat this step for each student whose data needs to be entered into the system.
- Once student details are in the system, the next step is to do the enrolment of their faces.
- User gets an option to add faces for each student using system camera.
- Authorized person from college should select 'capture from system camera' option in the system and ask the student to look directly into the web camera.
- After sometime the 'preview' button beside the capture button will activate and allow the user to check if the video has been captured correctly with the student face clearly visible.
- If the video is proper, then the user has to press on 'upload' to upload the video into the system for processing.
- System will generate facial images of the student from the video after sometime. In the meanwhile, authorized user can capture video of another student.
- Once the faces of the student are visible user has to select 15 best images in the stock of images and select 'add images' button to complete the enrolment of that student.

### **Hardware required for enrolling the faces of students in the college**

1. Any existing Desktop/Laptop (I3 processor or higher). [Do not use the existing web-streaming Ubuntu system]
2. USB Web camera

**Note:** While enrolling the faces of students make sure that there is no backlight behind the student face.



## Cameras Requirements for Streaming Audio from examination halls

The following camera specifications are recommended in examination halls to support audio streaming to the RGUHS control room:

### **Camera Specifications:**

1. **Integrated Audio and Video Streaming:** The cameras should feature built-in capability for streaming both audio and video over IP networks without the need for any external devices or additional equipment. This ensures seamless integration and simplifies the setup process.
2. **Audio Codec Support:** The cameras should support the **G711  $\mu$ -law (Mu law)** audio codec for streaming the audio to RGUHS control room.

## Cameras Requirements for Enrollment of Students faces

Rajiv Gandhi University of Health Sciences (RGUHS) is endeavoring to enhance examination integrity by introducing a facial recognition system for all its students. To realize this vision, each college needs to enroll the facial images of all its students into the system. In order to enroll student faces, each college must have a Full HD USB camera attached to a system to capture faces.

1. Some recommended models are:
  - i. Logitech Brio 100
  - ii. Logitech C920 HD Pro
  - iii. Lenovo NET\_BO
  - iv. Lenovo 300