

Sonopant Dandekar Shikshan Mandali's

**SONOPANT DANDEKAR ARTS, V.S. APTE COMMERCE AND  
M.H. MEHTA SCIENCE COLLEGE, PALGHAR**

## **AVISHKAR REPORT 2021-2022**

# **AVISHKAR**

University of Mumbai  
Department of Students' Development 16th Inter-  
Collegiate/Institute/Department  
Avishkar Research Convention

## **ABOUT AVISHKAR COMPETITION**



Prepared by : Internal Quality Assurance Cell



Sonopant Dandekar Shikshan Mandali's

**SONOPANT DANDEKAR ARTS, V.S. APTE COMMERCE AND  
M.H. MEHTA SCIENCE COLLEGE, PALGHAR**

Palghar, Dist – Palghar, Pin – 401 404, E – Mail: sdscollege@yahoo.com

## **ABOUT AVISHKAR COMPETITION**

### **1. Introduction**

The frontiers of education are changing every day. We are moving from the knowledge based society to a society of innovation and thus research becomes one of the most important components of the higher education. Today, one of the indices for the measurement of the potential of any educational institution is its research activity. All stakeholders namely, students, teachers and other entities in the higher educational institutes should be enthused to engage themselves in research at various levels. It is essential to unveil the unknown and unexplored areas of knowledge in all fields of academic enquiry. Due to the increasing requisite of interdisciplinary approach, no discipline goes untouched from the research activity. Keeping in view the new challenges, the then Hon'ble Governor of Maharashtra and the Chancellor of the Universities in the State of Maharashtra initiated 'Aavishkar: Maharashtra State Inter-University Research Convention' in the academic year 2006-2007. Since 2006-2007 the University of Mumbai has started Aavishkar: Inter-Collegiate / Institute / Department Research Convention for its affiliated colleges, constituent colleges, recognized institutes and academic departments. The Convention is designed with the intention to develop a research culture and scientific temper among the students and research scholars. The activity will also help to develop skill, review new dimensions of explored areas of knowledge as well as the unexplored areas of enquiry. The University of Mumbai has a long tradition of 165 years with more than 852 colleges and over 9 lacs students studying in various academic departments, recognized institutes and affiliated and constituent colleges of the University. It shall be the collective responsibility of all of us to sensitize the students and teachers about the Convention and build confidence among the students to venture into research.

### **2. Objectives**

- To identify the hidden innovative scientific talents and capacities of the students.
- To provide opportunities for inculcating research attitude in the students.

- To create academically sound youth by developing knowledge, skill and attitude of the research.
- To promote aptitude with emphasis on high standards of research and development activities for the benefit of the students.
- To explore the active student centred paradigm of education.
- To excel active learning standards of research.
- To develop personality and communication skills in the students.
- To produce a research scholars commensurate with the need of the future.
- To promote the interaction among the students for the exchange of various aspects of the research.
- To encourage the students to participate in research activities at inter-collegiate, district, University, state, zonal, national and international levels.
- To felicitate and recognize achievements of students by offering awards and honours.
- To provide financial assistance in the form of fellowships / scholarships to the selected researchers for the development of his/her innovative research.
- To provide conducive environment for the enhancement of entrepreneurial skills and incubate the valid research ideas.

### **3. Rules and Regulations –**

#### **A) Categories and Levels**

Categories and Levels Students of the University of Mumbai are allowed to participate in any of the following category / discipline irrespective of their own discipline / course

#### **Categories / Disciplines**

Category 1: Humanities, Languages and Fine Arts

Category 2: Commerce, Management and Law

Category 3: Pure Sciences

Category 4: Agriculture and Animal Husbandry

Category 5: Engineering and Technology

Category 6: Medicine and Pharmacy

Students can participate in any of the above categories as per the levels whichever suits them as indicated below

## **Levels**

Level 1: Undergraduate Students (UG)

Level 2: Postgraduate Students (PG)

Level 3: Post PG Students (PPG)

Level 4: In-service Teachers (TH)

## **B) Areas covered under each category**

### **Category 1: Humanities, Languages and Fine Arts**

It covers research areas like languages, social sciences, fine arts, education, humanities and other related fields which are of social interest like agricultural extension, preventive medicine and veterinary sciences, etc.

### **Category 2: Commerce, Management and Law**

It covers research areas like commerce, accountancy, management, banking, insurance, law and other fields where these disciplines are applicable.

### **Category 3: Pure Sciences**

It covers areas like all basic sciences, soil sciences, home sciences and other fields like biotechnology, microbiology, environmental sciences, life sciences, biochemistry, biophysics, bioanalytical, etc.

### **Category 4: Agriculture and Animal Husbandry**

It covers areas like horticulture, agriculture, agronomy, entomology, fisheries, animal husbandry and other fields like biotechnology, microbiology, biophysics, biochemistry, bioanalytical chemistry, etc. where agricultural and animal husbandry aspects are covered.

### **Category 5: Engineering and Technology**

It covers all branches of engineering and technology. It also includes computer science, information technology, agricultural engineering, food technology, dairy technology, biophysics, biomedical and biosensor, etc. where engineering and technology aspects are covered.

## **Category 6: Medicine and Pharmacy**

It covers all branches of medicine and pharmacy. It also includes veterinary medicine, preventive medicine, epidemiology, clinical studies, etc.

### **C) The General Eligibility Criteria for Participation**

1) The full time bonafide student enrolled in UG / PG / M.Phil. / Ph.D. / D.Sc. / D.Lit. Degree Programme of the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai is eligible for the participation.

2) The student enrolled in UG Diploma Programme of the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai which is of a minimum duration of 1 academic year and whose examination is conducted by the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai subsequent to passing of 12th Class or HSC Examination or equivalent Examination is also eligible to participate in the UG level.

3) The student enrolled in PG Diploma Programme of the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai which is of a minimum duration of 1 academic year and whose examination is conducted by the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai subsequent to passing of graduation is also eligible to participate in the PG level.

4) Student enrolled in correspondence course/programme of the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai is NOT eligible for the participation.

5) Casual student, external student and student pursuing certificate course/programme and bridge course/programme in the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai are NOT eligible for the participation.

6) Student enrolled in distance education programme/course of the University of Mumbai is NOT eligible for the participation.

7) Student having provisional admission in the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai is NOT eligible for the participation.

8) Student can represent only that affiliated college / constituent college / recognized institute / academic department of the University of Mumbai where he/she is pursuing his/her degree / diploma.

9) The student shall NOT be allowed to represent more than 1 affiliated college / constituent college / recognized institute / academic department of the University of Mumbai during his/her current academic year.

10) Student shall have valid Identity Card of the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai.

11) Student shall have PRN No. / Registration No. of the University of Mumbai.

12) Student migrating from other University can participate only when his/her admission is regularized and he/she gets admitted as a bonafide student in the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai.

13) Student from any discipline can participate in any of the above category to which his/her research project fits.

14) Any disqualification of a participant on the ground of General Eligibility Criteria may result in removal of the participant from the 'Aavishkar: Inter-Collegiate / Institute / Department Research Convention' to be held in the following three years including current year of the participation.

15) Ethics of research must be delicately observed by the student and his/her mentor.

## **D) Eligibility Criteria for Categories and Levels**

The rules for each level are as follows

### **1. Undergraduate Students (UG)**

- i) A full time bonafide student enrolled in UG Degree Programme of the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai is eligible for the participation.
- ii) A student enrolled in UG Diploma Programme of the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai which is of a minimum duration of 1 academic year and whose examination is conducted by the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai subsequent to passing of 12th Class or HSC Examination or equivalent Examination is also eligible to participate in the UG level.
- iii) The age of the student shall not be more than 25 years as on 30th September of the academic year in which the Convention is being held.

### **2. Post-Graduate Students (PG)**

- a) A full time bonafide student enrolled in PG Degree Programme of the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai is eligible for the participation.
- b) A student enrolled in PG Diploma Programme of the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai which is of a minimum duration of 1 academic year and whose examination is conducted by the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai subsequent to passing of graduation is also eligible to participate in the PG level.
- c) The age of the student shall not be more than 30 years as on 30th September of the academic year in which the Convention is being held.

### **3. Post PG Students (PPG)**

- a) A student who has post graduate degree and is duly registered for M.Phil. / Ph.D. / D.Sc. / D.Litt. degree in the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai is eligible for the participation.

- b) A student pursuing Post-doctoral Research in the affiliated college / constituent college / recognized institute / academic department of the University of Mumbai is NOT eligible for the participation.
- c) A student who has submitted his/her synopsis / thesis for his/her M.Phil. / Ph.D. / D.Sc. / D.Litt. degree and his/her viva-voce examination is awaited, is also eligible for the participation.
- d) A student who has successfully completed his/her viva-voce examination for his/her M.Phil. / Ph.D. / D.Sc. / D.Litt. degree is NOT eligible.
- e) There is no age limit for the PPG students.

### **Teachers (TH)**

- a) Teacher must be an approved teacher of the University of Mumbai.
- b) Teacher must be pursuing his/her M.Phil. / Ph.D. degree and must be registered under University of Mumbai.
- c) Teacher who has submitted his/her synopsis / thesis for his/her M.Phil. / Ph.D. degree and his/her viva-voce examination is awaited is also eligible.
- d) Teacher who has successfully completed his/her viva-voce examination for his/her M.Phil. / Ph.D. degree is not eligible.
- e) There is **no age limit** for the teacher.

## **4. Mode of Convention/ Competition**

There will be two rounds –

### **1. Selection Round (District/Zone Level)**

### **2. Final Round (University Level)**

#### **1. Selection Round**

- Each Affiliated College / Recognized Institute / University Department can depute maximum 48 research proposals for the Selection Round, not exceeding 6 research proposals in each level per category.
- Each Affiliated College / Recognized Institute / University Department will submit the detailed Research Proposal online in the PDF format. The necessary fields and word limit are as specified below.
- Each Research Proposal will have following sections



Section	Limit
(a) Title*	Maximum 15 Words
(b) Rationale and Gap Analysis (Justified with Suitable Literature)*	Maximum 500 Words
(c) Objectives*	Maximum 5
(d) Hypothesis	Maximum 2
(e) Research Design and Methods / Research Methodology*	Maximum 500 Words
(f) Preliminary Work / Survey	Maximum 300 Words
(g) Expected Outcome/s*	Maximum 300 Words
(h) Benefits to the Society*	Maximum 300 Words
(i) Cost Benefit Analysis	Maximum 200 Words
(j) Future Scope*	Maximum 200 Words
(k) SWOC Analysis / Limitations*	Maximum 200 Words
(l) References (Important Only)*	Maximum 20

\*These fields are mandatory while writing the research proposal.

- The research proposal which does not adhere to the above mentioned sections and the word limit will not be considered for the evaluation.
- The mandatory field should be the part of the research proposal, however, the non-mandatory fields can be chosen while writing the research proposal as per the need of the subject. Do not change the title of the sections.
- Do not mention the name of the participant or the college/institute/department in the research proposal.
- The college has to upload the complete research proposals of the students on the portal. The research proposal will be in the PDF format and size of the PDF will not be more than 20 MB.
- The research proposals will be evaluated by the jury panel.
- The short-listed research proposals will be eligible for the Final Round which will be displayed on the homepage of the [www.unimumbaidsd.com](http://www.unimumbaidsd.com)

## ●Final Round

- The Final Round will be on the Virtual Platform and the shortlisted research proposals from Selection Round will be presented by the students in front of the jury panel.
- The link of the virtual platform will be provided to the student participant / college on Registered Email ID of the Student and Teacher Co-ordinator, two hours before the commencement of competition.
- Student can present their research proposal in English or Marathi or Hindi language.
- The presentation will be for 6 minutes followed by 4 minutes question answer / discussion. However, the time of question answer / discussion may vary according to the judges' choice.
- Videos of prototype / models / working models / proposed models can also be presented within the allotted 6 minutes.
- Best research proposals per category per level will be selected.

## 5. Awards/ Honours and Scholarships

### 1. Selection Round

#### Certificate of Participation

Every participant and his/her mentor will receive the e-Certificate of Participation.

#### Certificate of Merit

The participants and their mentors whose research proposals are qualified for Final Round will receive the e-Certificate of Merit.

#### Zonal / District Championship

Certificate for Zonal / District Championship will be given to the College / Recognized Institute / University Department whose maximum research proposals are qualified from the particular Zone / District for Final Round.

### 2. Final Round

#### Certificate of Participation

Every participant and his/her mentor will receive the e-Certificate of Participation.

#### Certificate of Merit

The participants and their mentors whose research proposals secured First Rank, Second Rank, Third Rank and Consolation shall receive the e-Certificate of Merit.

Category-wise Championship Certificate for the Category-wise Championship will be given to the College / Recognized Institute / University Department scoring maximum points in a particular

category. The calculation of the points shall be done on the basis of 3 points for First Rank, 2 points for Second Rank and 1 point for Third Rank.

### **Overall Championship Rotating Overall Championship**

Trophy and Certificate shall be given to the College / Recognized Institute / University Department who scores maximum points at the Final Round. The calculation of the points shall be done on the basis of 3 points for First Rank, 2 points for Second Rank and 1 point for Third Rank.

### **Overall Runner Championship Rotating Overall Runner Championship**

Trophy and Certificate shall be given to the College / Recognized Institute / University Department who scores second best maximum points at the Final Round. The calculation of the points shall be done on the basis of 3 points for First Rank, 2 points for Second Rank and 1 point for Third Rank.

### **Overall Second Runner Championship Rotating Overall Second Runner Championship**

Trophy and Certificate shall be given to the College / Recognized Institute / University Department who scores third best maximum points at the Final Round. The calculation of the points shall be done on the basis of 3 points for First Rank, 2 points for Second Rank and 1 point for Third Rank. Ten Grace Marks All the participants securing First Rank, Second Rank and Third Rank from every level of each category shall be awarded with ten grace marks as per University Ordinance 0.229 after completion of the necessary formalities by the Examination Cell of the College / Recognized Institute / University Department / University of Mumbai. The Teacher Co-ordinator and/or concerned participant/s should download the Letter of Award for 10 Grace Marks from the website [www.unimumbaidsd.com](http://www.unimumbaidsd.com) and complete the formalities as per the circular to be issued by Director, Students' Development in this concern.

University of Mumbai



DEPARTMENT OF  
STUDENTS' DEVELOPMENT

*Certificate of Merit*

This is to certify that Sonopant Dandekar Shikshan Mandali's **Sonopant Dandekar Arts, V.S. Apte Commerce and M.H. Mehta Science College, Palghar** affiliated to the University of Mumbai has been awarded an '**Overall Championship (First Rank)**' for **Zone IV: Palghar District** in the **16<sup>th</sup> Inter-Collegiate / Institute / Department Avishkar Research Convention** organized on virtual platform by Department of Students' Development, University of Mumbai for the academic year 2021-22.



**Dr. Sunil Patil**

Director

Department of Students' Development,  
University of Mumbai

**Prof. Suhas Pednekar**

Vice-Chancellor,

University of Mumbai

Date: May 31, 2022

Place: Mumbai



University of Mumbai



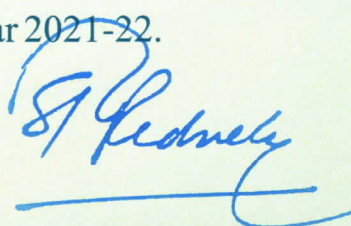
DEPARTMENT OF  
STUDENTS' DEVELOPMENT

*Certificate of Merit*

This is to certify that Sonopant Dandekar Shikshan Mandali's Sonopant Dandekar Arts, V.S. Apte Commerce and M.H. Mehta Science College, Palghar affiliated to the University of Mumbai has been awarded an '**Overall Championship (First Rank)**' in **Agricultural and Animal Husbandry Category** in the **16<sup>th</sup> Inter-Collegiate / Institute / Department Avishkar Research Convention** organized on virtual platform by Department of Students' Development, University of Mumbai for the academic year 2021-22.

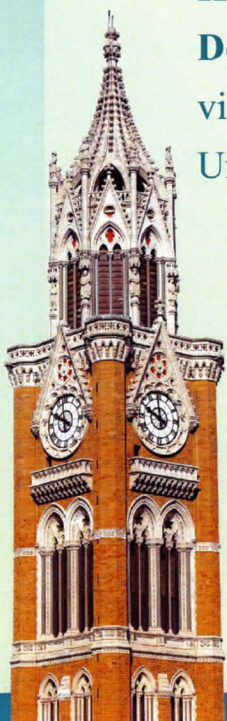


**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai



**Prof. Suhas Pednekar**  
Vice-Chancellor,  
University of Mumbai

Date: May 31, 2022  
Place: Mumbai





University of Mumbai



DEPARTMENT OF  
STUDENTS' DEVELOPMENT

*Certificate of Merit*

This is to certify that Sonopant Dandekar Shikshan Mandali's **Sonopant Dandekar Arts, V.S. Apte Commerce and M.H. Mehta Science College, Palghar** affiliated to the University of Mumbai has been awarded an '**Overall Second Runner Championship (Third Rank)**' in the **16<sup>th</sup> Inter-Collegiate / Institute / Department Avishkar Research Convention** organized on virtual platform by University of Mumbai for the academic year 2021-22.

**Dr. Sunil Patil**  
Director  
Department of Students' Development,  
University of Mumbai

**Prof. Suhas Pednekar**  
Vice-Chancellor,  
University of Mumbai

Date: May 31, 2022

Place: Mumbai



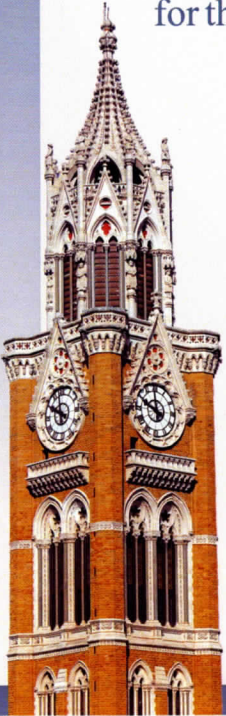
University of Mumbai



DEPARTMENT OF  
STUDENTS' DEVELOPMENT

*Certificate of Merit*

This is to certify that Sonopant Dandekar Shikshan Mandali's **Sonopant Dandekar Arts, V.S. Apte Commerce & M.H. Mehta Science College, Palghar** affiliated to the University of Mumbai has been awarded an '**Overall Championship (First Rank)**' for **Fine Art** Section in the 54<sup>th</sup> Inter-Collegiate/Institute/Department Cultural Youth Festival organized on virtual platform by University of Mumbai for the academic year 2021-22.



**Dr. Sunil Patil**  
Director  
Department of Students' Development,  
University of Mumbai

**Prof. Suhas Pednekar**  
Vice-Chancellor  
University of Mumbai

Date: **April 30, 2022**

Place: **Mumbai**