

Tele- 7249250184/2120

AIT/0323/CNO/Prin

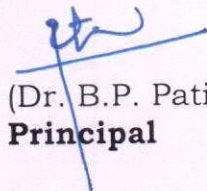
15 Feb 2021

**OFFICE OF PRINCIPAL**

**STANDARD OPERATING PROCEDURE (SOP)**

**"BEST RESULT AWARD"**

1. The SOP for "Best Result Award" is released and attached herewith.
2. This will be effective from current academic year 2019 – 20. Earlier SOP No. AIT/0323/CNO/Prin dated 16 Jan 2020 will be null and void.
3. This SOP will be reviewed as and when required.

  
(Dr. B.P. Patil)  
**Principal**

**Copy To -**

Director }  
Jt Dir } for information please.

HOD Mech }  
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**Army Institute of Technology, Pune**

**Committee Report - Review of SOP for Best Result Award**

**Introduction**

1. A committee, as under, is constituted vide letter no. AIT/0323/CNO/Prin dated 7 Jan 2021 for review of SOP for the Best Result Award.
  - (a) Dr Surekha K S - Presiding Officer
  - (b) Prof Geeta Patil - Member
  - (c) Dr Renuka Bhandari - Member
  - (d) Prof Pravin Hore - Member
  - (e) Dr Ganesh Mundhe – Member
2. The recommendations of the committee are based on the feedback received from the Principal and HoDs (through departmental representatives) about the lacunas of the existing SOP.
3. The SOP is subject to change as per the future revision of the examination process by the SPPU.

**Guidelines**

4. The SOP has been revised considering the following key points/criteria
  - (a) The SOP applies to all UG and PG courses.
  - (b) Only the subjects with the theory head are considered.
  - (c) Results of the preceding two semesters in which the best result award announced shall be considered for calculation.
  - (d) Only the first attempt (including revaluation results) results shall be considered for calculation.
  - (e) The Result Index is based on the qualitative results only.
  - (f) The analysis has to be conducted on a division basis for the first-year engineering and other branches having intake more than 60.
  - (g) The analysis shall be based on the actual marks (not credit) scored by the students.
  - (h) The minimum number of students to be counted in case of elective subjects of Undergraduate and all subjects of Postgraduate courses is as follows:
    - (i) For an elective subject, the minimum number of students to be considered



should be one-third of the sanctioned intake (i.e greater than or equal to 20).

(ii) For Postgraduate course, the minimum number of students to be considered should be one-third of the sanctioned intake.

5. Total number of Awards :05

|                               |    |
|-------------------------------|----|
| Best FE result                | 01 |
| Best SE Result (All branches) | 01 |
| Best TE Result (All branches) | 01 |
| Best BE Result (All branches) | 01 |
| Best ME-I and ME-II result    | 01 |

6. Nature of Award : Prize Money and Certificate

7. The period under consideration :One Academic Year(Two semesters)

8. Method of Evaluation:

(a) All calculations shall be based on first attempt results only.

(b) Qualitative Result Index :

$$R = B_1 + B_2 + B_3 + B_4 + B_5 + B_6$$

Number of students who secured marks between 90% and 100% =S<sub>1</sub>,

$$B_1 = (S_1 * 1.0) / (S / 100)$$

S= Total Strength of class

Number of students who secured marks between 80% and 89% =S<sub>2</sub>,

$$B_2 = (S_2 * 0.9) / (S / 100)$$

Number of students who secured marks between 70% and 79% =S<sub>3</sub>,

$$B_3 = (S_3 * 0.8) / (S / 100)$$

Number of students who secured marks between 60% and 69% =S<sub>4</sub>,

$$B_4 = (S_4 * 0.7) / (S / 100)$$

Number of students who secured marks between 50% to 59% =S<sub>5</sub>,

$$B_5 = (S_5 * 0.6) / (S / 100)$$

Number of students who secured marks between 40% to 49% =S<sub>6</sub>,

$$B_6 = (S_6 * 0.5) / (S / 100)$$

(c) The Result index shall be rounded up to two decimal points.

(d) Teacher with the highest Result index 'R' in any one of the subject in any semester shall be awarded the 'Best Result Award' for FE/SE/TE/BE/ME-I/ME-II.

(e) The minimum cut off for the Best Result Award:

**Result Index of 70 and the minimum number of students clearing a particular Subject shall be 60%.**

#### **Procedure to apply for Best Result Award**

9. The Principal will appoint a committee consisting of members of faculty to select the Teacher/Subject for the Best Result Award.
10. Departmental Heads shall prepare result sheets as per the guidelines given in para 4.
11. HoDs shall submit certified hard copies of result sheets along with necessary proofs to the selection committee.

#### **Selection criteria**

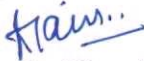
12. A teacher who has taught a particular subject in the class for more than  $\frac{3}{4}$ <sup>th</sup> of the semester is eligible.
13. If the Result index of more than one subject is same in a particular category, the index B1 is used for selection of the award. The subject with the highest index (B1) shall be considered for the award. If the result index (B1) are same, the same procedure shall be applied to the index B2. The process of selection of the best result shall be continued up to the index B6 if necessary.
14. A subject that receives an award in a particular category shall not be eligible for the same award for the next two consecutive years.

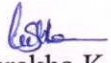
## Recommendation

16. The selection committee shall recommend the list of faculty for the Best Result Award to the Principal.
17. The Best Result Award will be given during the AIT day ceremony on 24<sup>th</sup> Feb every year.

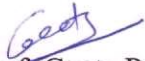
Encl: A case study  
Format

Dr Ganesh Mundhe  
Member

  
Dr Renuka Bhandari  
Member

  
Dr Surekha K S  
Presiding Officer

  
Prof Pravin Hore  
Member

  
Prof. Geeta Patil  
Member



### Format for the selection of Best Result Award

(a) Qualitative Result Index :

$$R = B1+B2+B3+B4+B5+B6$$

Number of students who secured marks between 90% and 100% =S1,

$$B1 = (S1*1.0)/(S/100)$$

S= Total Strength of class

Number of students who secured marks between 80% and 89% =S2,

$$B2 = (S2*0.9)/(S/100)$$

Number of students who secured marks between 70% and 79% =S3,

$$B3 = (S3*0.8)/(S/100)$$

Number of students who secured marks between 60% and 69% =S4,

$$B4 = (S4*0.7)/(S/100)$$

Number of students who secured marks between 50% to 59% =S5,

$$B5 = (S5*0.6)/(S/100)$$

Number of students who secured marks between 40% to 49% =S6,

$$B6 = (S6*0.5)/(S/100)$$

(b) If the Result index of more than one subject is same in a particular category, the index B1 is used for selection of the award. The subject with the highest index (B1) shall be considered for the award. If the result index (B1) are same, the same procedure shall be applied to the index B2. The process of selection of the best result shall be continued up to the index B6 if necessary.

(c) Teacher with the highest Result index 'R' in any one of the subject in any semester shall be awarded the 'Best Result Award' for FE/SE/TE/BE/ME-I/ME-II.

(d) The minimum cut off for the Best Result Award:

**Result Index of 70 and the minimum number of students clearing a particular Subject shall be 60%.**

### Case Study for TE Results

Best Result: Summary for AY 2018-19 as per the existing SOP

| Class (Branch) | Semester | Name of the Subject                             | Strength  | A Quantitative result | B Qualitative result | C Average of A and B | D Last three years average result | R Result Index R=(C/D)*100 |
|----------------|----------|---|-----------|-----------------------|----------------------|----------------------|-----------------------------------|----------------------------|
| TE (E&TC-A)    | Sem I    | Electromagnetic & Transmission Lines            | 59        | 91.53                 | 64.58                | 78.05                | 76.04                             | 102.64                     |
|                |          | Digital Communication                           | 59        | 89.83                 | 62.71                | 76.27                | 91.89                             | 83.00                      |
|                |          | Digital Signal Processing                       | 59        | 96.61                 | 67.29                | 81.95                | 87.09                             | 94.10                      |
|                |          | Microcontroller                                 | 59        | 72.88                 | 43.56                | 58.22                | 83.55                             | 69.69                      |
|                |          | Mechatronics                                    | 59        | 81.36                 | 51.19                | 66.27                | 71.67                             | 92.46                      |
|                |          | <b>Electromagnetic &amp; Transmission Lines</b> | <b>61</b> | <b>95.08</b>          | <b>65.41</b>         | <b>80.25</b>         | <b>72.09</b>                      | <b>111.31</b>              |
|                |          | Digital Communication                           | 61        | 95.08                 | 64.43                | 79.75                | 92.57                             | 86.15                      |
|                |          | Digital Signal Processing                       | 61        | 96.72                 | 69.84                | 83.28                | 88.71                             | 93.88                      |
|                |          | Microcontroller                                 | 61        | 77.05                 | 49.84                | 63.44                | 82.96                             | 76.47                      |
|                |          | Mechatronics                                    | 61        | 95.08                 | 61.31                | 78.20                | 76.06                             | 102.81                     |

Best Result: Summary for AY 2018-19 as per the proposed SOP

| Class (Branch) | Semester | Name of the Subject                  | Strength  | R Qualitative result |
|----------------|----------|--------------------------------------|-----------|----------------------|
| TE (E&TC-A)    | Sem I    | Electromagnetic & Transmission Lines | 59        | 64.58                |
|                |          | Digital Communication                | 59        | 62.71                |
|                |          | Digital Signal Processing            | 59        | 67.29                |
|                |          | Microcontroller                      | 59        | 43.56                |
|                |          | Mechatronics                         | 59        | 51.19                |
|                |          | Electromagnetic & Transmission Lines | 61        | 65.41                |
|                |          | Digital Communication                | 61        | 64.43                |
|                |          | <b>Digital Signal Processing</b>     | <b>61</b> | <b>69.84</b>         |
|                |          | Microcontroller                      | 61        | 49.84                |
|                |          | Mechatronics                         | 61        | 61.31                |
| TE (E&TC-B)    | Sem I    | Digital Signal Processing            | 61        | 69.84                |
|                |          | Microcontroller                      | 61        | 49.84                |
|                |          | Digital Communication                | 61        | 64.43                |
|                |          | Mechatronics                         | 61        | 61.31                |



**Best Result: Summary for AY 2018-19 as per the existing SOP**

| Class (Branch)  | Semester | Name of the Subject                   | Strength  | A<br>Quantitative<br>result | B<br>Qualitative<br>result | C<br>Average of A<br>and B | D<br>Last three years<br>average result | R<br>Result<br>Index<br>$R=(C/D)$<br>*100 |
|-----------------|----------|---------------------------------------|-----------|-----------------------------|----------------------------|----------------------------|---|---|
| TE (Comp<br>-A) | Sem I    | Theory of Computation                 | 59        | 93.22                       | 60.00                      | 76.61                      | 90.00                                   | 85.12                                     |
|                 |          | Database Management Systems           | 59        | 98.31                       | 63.22                      | 80.76                      | 97.77                                   | 82.60                                     |
|                 |          | Software Engineering & Project Mgmt.  | 59        | 98.31                       | 70.00                      | 84.15                      | 98.33                                   | 85.58                                     |
|                 |          | Information Systems & Engg. Economics | 59        | 100.00                      | 69.49                      | 84.75                      | 97.12                                   | 87.26                                     |
|                 |          | Computer Networks                     | 59        | 98.31                       | 71.36                      | 84.83                      | 96.67                                   | 87.75                                     |
|                 |          | <b>Theory of Computation</b>          | <b>60</b> | <b>96.67</b>                | <b>66.33</b>               | <b>81.50</b>               | <b>90.00</b>                            | <b>90.56</b>                              |
|                 |          | Database Management Systems           | 60        | 96.67                       | 65.83                      | 81.25                      | 97.77                                   | 83.10                                     |
|                 |          | Software Engineering & Project Mgmt.  | 60        | 98.33                       | 71.67                      | 85.00                      | 98.33                                   | 86.44                                     |
|                 |          | Information Systems & Engg. Economics | 60        | 96.67                       | 71.00                      | 83.83                      | 97.12                                   | 86.32                                     |
|                 |          | Computer Networks                     | 60        | 93.33                       | 65.00                      | 79.17                      | 96.67                                   | 81.89                                     |

**Best Result: Summary for AY 2018-19 as per the proposed SOP**

| Class (Branch)  | Semester | Name of the Subject                             | Strength  | R<br>Qualitative<br>result |
|-----------------|----------|---|-----------|----------------------------|
| TE (Comp<br>-A) | Sem I    | Theory of Computation                           | 59        | 60.00                      |
|                 |          | Database Management Systems                     | 59        | 63.22                      |
|                 |          | Software Engineering & Project Mgmt.            | 59        | 70.00                      |
|                 |          | Information Systems & Engg. Economics           | 59        | 69.49                      |
|                 |          | Computer Networks                               | 59        | 71.36                      |
|                 |          | Theory of Computation                           | 60        | 66.33                      |
|                 |          | Database Management Systems                     | 60        | 65.83                      |
|                 |          | <b>Software Engineering &amp; Project Mgmt.</b> | <b>60</b> | <b>71.67</b>               |
|                 |          | Information Systems & Engg. Economics           | 60        | 71.00                      |
|                 |          | Computer Networks                               | 60        | 65.00                      |
| TE (Comp<br>-B) | Sem I    | Theory of Computation                           | 59        | 60.00                      |
|                 |          | Database Management Systems                     | 59        | 63.22                      |
|                 |          | Software Engineering & Project Mgmt.            | 59        | 70.00                      |
|                 |          | Information Systems & Engg. Economics           | 59        | 69.49                      |
|                 |          | Computer Networks                               | 59        | 71.36                      |
|                 |          | Theory of Computation                           | 60        | 66.33                      |
|                 |          | Database Management Systems                     | 60        | 65.83                      |
|                 |          | <b>Software Engineering &amp; Project Mgmt.</b> | <b>60</b> | <b>71.67</b>               |
|                 |          | Information Systems & Engg. Economics           | 60        | 71.00                      |
|                 |          | Computer Networks                               | 60        | 65.00                      |



**Best Result: Summary for AY 2018-19 as per the existing SOP**

| Class (Branch) | Semester | Name of the Subject           | Strength | A<br>Quantitative result | B<br>Qualitative result | C<br>Average of A and B | D<br>Last three years average result | R<br>Result Index<br>$R=(C/D) * 100$ |
|----------------|----------|-------------------------------|----------|--------------------------|-------------------------|-------------------------|--------------------------------------|--------------------------------------|
| TE (Mech)      | Sem I    | Design of Machine Element I   | 63       | 88.89                    | 56.67                   | 72.78                   | 91.87                                | 79.22                                |
|                |          | Heat Transfer                 | 63       | 92.06                    | 59.68                   | 75.87                   | 89.11                                | 85.15                                |
|                |          | Theory of Machines II         | 63       | 88.89                    | 56.03                   | 72.46                   | 85.15                                | 85.10                                |
|                |          | Turbo Machines                | 63       | 63.49                    | 37.46                   | 50.48                   | 80.87                                | 62.42                                |
|                |          | Metrology and Quality Control | 63       | 98.41                    | 69.21                   | 83.81                   | 98.34                                | 85.22                                |

**Best Result: Summary for AY 2018-19 as per the proposed SOP**

| Class (Branch) | Semester | Name of the Subject           | Strength | R<br>Qualitative result |  |
|----------------|----------|-------------------------------|----------|-------------------------|--|
| TE (Mech)      | Sem I    | Design of Machine Element I   | 63       | 56.67                   |  |
|                |          | Heat Transfer                 | 63       | 59.68                   |  |
|                |          | Theory of Machines II         | 63       | 56.03                   |  |
|                |          | Turbo Machines                | 63       | 37.46                   |  |
|                |          | Metrology and Quality Control | 63       | 69.21                   |  |

Best Result: Summary for AY 2018-19 as per the existing SOP

| Semester         | Strength                             | A<br>Quantitative<br>result | B<br>Qualitative<br>result | C<br>Average of A<br>and B | D<br>Last three years<br>average result | R<br>Result Index<br>$R=(C/D)$<br>*100 |        |
|------------------|--------------------------------------|-----------------------------|----------------------------|----------------------------|---|--|--------|
| TE (IT)<br>Sem I | Theory of Computation                | 60                          | 96.67                      | 61.67                      | 79.17                                   | 77.21                                  | 102.53 |
|                  | Database Management System           | 60                          | 96.67                      | 67.83                      | 82.25                                   | 90.53                                  | 90.85  |
|                  | Software Engineering & Project Mgmt. | 60                          | 100.00                     | 71.50                      | 85.75                                   | 96.14                                  | 89.19  |
|                  | Operating System                     | 60                          | 100.00                     | 76.33                      | 88.17                                   | 100.00                                 | 88.17  |
|                  | Human – Computer Interaction         | 60                          | 100.00                     | 74.17                      | 87.08                                   | 100.00                                 | 87.08  |

Best Result: Summary for AY 2018-19 as per the proposed SOP

| Semester         | Strength                             | R<br>Qualitative result |
|------------------|--------------------------------------|-------------------------|
| TE (IT)<br>Sem I | Theory of Computation                | 60                      |
|                  | Database Management System           | 60                      |
|                  | Software Engineering & Project Mgmt. | 60                      |
|                  | Operating System                     | 60                      |
|                  | Human – Computer Interaction         | 60                      |

The Best Result Award is awarded to:

| As per the existing SOP                        | As per the proposed SOP  |
|--|--------------------------|
| Electromagnetic & Transmission Lines (TE E&Tc) | Operating System (TE IT) |