RULES AND REGULATIONS
M.ENG. FOR WORKING PROFESSIONALS

July 2020
# INDIAN INSTITUTE OF TECHNOLOGY

**Rules for M.Eng. Programme for Working Professionals**

## INDEX

<table>
<thead>
<tr>
<th>Rule no.</th>
<th>Rule Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>General Information</td>
</tr>
<tr>
<td>II</td>
<td>Preface</td>
</tr>
<tr>
<td>III</td>
<td>Academic Programme Committees of the Institute</td>
</tr>
<tr>
<td>IV</td>
<td>Faculty Advisory System</td>
</tr>
<tr>
<td>V</td>
<td>Duration of Programme</td>
</tr>
<tr>
<td>VI</td>
<td>Mode of Delivery of the Courses</td>
</tr>
</tbody>
</table>

### RULES AND REGULATIONS

<p>| 1.1 | Submission of Eligibility Certificates |
| 1.2 | Registration |
| 1.2.1 – 1.2.7 | Sub sections of Registration |
| 1.3 | Course Adjustments |
| 1.4 | Institute Electives |
| 1.5 | Programme Category and Financial Support |
| 1.6 | Change from M.Eng. to any of regular Masters /Ph.D. programme of the Institute |
| 1.7 | Pattern of Courses |
| 1.8 | Pattern of Credits to the course |
| 1.9 | Course Credit Requirement and Semester-wise Registration of Courses |
| 2.0 | Course Structure |
| 2.1 | Summer Registration |
| 2.2 | Dropping of course(s) |
| 2.3 | Course Withdrawn grade |
| 2.4 | Admission to M.Eng. through CEP |
| 2.5 | Transfer of course credits completed under CEP after admission to M.Eng. |
| 2.6 | Minimum number of students required to run a particular course |
| 2.6.1 | Course Assessment and Award of Grades |
| 2.6.2 | Grades |
| 2.6.3 | Failure grade |
| 2.6.4 | FF grade |
| 2.6.5 | FR grade |
| 2.6.6 | 'FR' grade for Academic Malpractice |
| 2.6.6 | II grade |</p>
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6.7</td>
<td>Payment of fees for re-registering the core course in which the student has obtained 'FR' grade.</td>
</tr>
<tr>
<td>2.6.8</td>
<td>Attendance Rules - DX grade</td>
</tr>
<tr>
<td>2.7</td>
<td>Students to continue in M.Eng. Programme after obtaining FR grades</td>
</tr>
<tr>
<td>2.8</td>
<td>Audit course</td>
</tr>
<tr>
<td>3.0</td>
<td>Additional Learning</td>
</tr>
<tr>
<td>3.1</td>
<td>Performance Requirement</td>
</tr>
<tr>
<td>3.2</td>
<td>The Semester Performance Index (SPI) / Cumulative Performance Index (CPI)</td>
</tr>
<tr>
<td>3.2.1 – 3.2.2</td>
<td>Sub sections of SPI/CPI</td>
</tr>
<tr>
<td>3.3</td>
<td>Overall CPI</td>
</tr>
<tr>
<td>3.4</td>
<td>Discontinuation from the programme</td>
</tr>
<tr>
<td>3.5</td>
<td>Exit Option</td>
</tr>
<tr>
<td>3.6</td>
<td>Project</td>
</tr>
<tr>
<td>3.6.1 – 3.6.4</td>
<td>Sub sections of Project</td>
</tr>
<tr>
<td>3.7</td>
<td>Temporary Discontinuation</td>
</tr>
<tr>
<td>3.8</td>
<td>Procedure to be adopted by students for research work involving human participation/animal trial</td>
</tr>
</tbody>
</table>

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I. GENERAL INFORMATION

The rules for M.Eng. Programme for working professionals were approved in the 239th meeting of the Senate held on 9th October, 2019.

II. Preface

Academic Programmes of the Institute are governed by Rules and Regulations as approved by the Senate, which is the highest Academic body of this Institute. The Senate continuously monitors these programmes and makes appropriate modifications/improvements from time to time. This booklet gives comprehensive information on the Rules & Regulations for Master of Engineering (M.Eng.) Programme.

This is a 1 year non-residential programme, offered for industry-professionals (whether employed, or not employed presently, but having a minimum of two years of work experience), with a structure consisting of course work (primarily in an online interactive mode), and a short project at the Institute.

This programme will help industry-professionals in enhancing their career prospects, growth and upgradation of skillsets. No placement support can be given from IIT Bombay to M.Eng. students, either during or after completion of their M.Eng. programme.

Industry-professionals who are unable to take leave from work on a full-time basis, may opt for this programme to change tracks/specialize. Candidates for this programme could be those participants, who are either company sponsored or self-sponsored.

This programme is semester-based and hence the students are required to follow certain procedures and meet certain academic requirements for each semester.

It is in the interest of the student that he/she should be fully familiar with the academic systems of this Institute. Particular attention should be paid to the schedule and structure of coursework and project work, the assessment procedure and the rules governing conduct and assessment of these activities.

Academic performance is monitored by the Postgraduate Academic Performance Evaluation Committee (PGAPEC), which reviews status of individuals after reviewing their performance.

III. Academic Programme Committees of the Institute

Following sections provide the details of the programme and set of rules governing them.

In order to keep pace with the rapid developments in science and technology and also to keep in view the requirements of the nation and the aspirations of students, it is imperative that the academic programmes of the Institute are reviewed continuously. The Postgraduate Programmes Committee (PGPC) is entrusted with this responsibility. It deliberates upon academic proposals received from the various Departmental Postgraduate Committees ((DPGCs), Interdisciplinary Programmes Committees (IDPCs), School Postgraduate Committees (SPGCs) and Postgraduate Committees for Centre (PGC's)*. Based on its deliberations, it makes suitable recommendations to the Senate for its approval.

* - When two or more academic units are involved (proposing a course of study), one of the participating academic units will act as the main academic unit. A common PGC/IDPC is to be formed by including 2/3 faculty members from each of the participating academic units and the Head of the main academic unit shall be the Convener of such PGC/IDPC.
IV. Faculty Advisory System

The Convener, PGC/IDPC will nominate the Faculty advisor for M.Eng. students.

On joining the Institute, each student is assigned a Faculty Advisor or a group of Faculty Advisors. He/She is expected to consult his/her Faculty Advisor on all matters relating to his/her in-semester and end-semester academic performance and the course workload he/she may take in that particular semester. The students are advised to contact the Faculty Advisor(s) for advice about courses within the framework of the norms laid down for the purpose. For the student’s project, his/her supervisor automatically becomes a Co-faculty Advisor and often takes over most of the role played by the Faculty Advisor, after the Supervisor-student assignment is made. For further registration of courses, the students should consult their project supervisor also.

V. Duration of Programme

The normal duration of the programme is of 1 year.

Students are required to complete all the minimum credits required for the programme, as approved by the Senate from time to time, within the stipulated duration of the programme.

However, in special cases, the student can be permitted, with an appropriate approval of the competent authority, to complete his/her programme, within four years from the date of original registration of the student for the M.Eng. Programme.

VI. Mode of Delivery of the Courses

Courses shall be delivered primarily in an online, interactive mode.

• The courses could be offered through CDEEP and be made available online after every lecture.
• Additional contact hours over 1 or 2 weekends and support via course blogs or moodle for remote participants, could be explored.

However, individual academic units, while offering the M.Eng. programme, should clearly specify in their proposed curriculum and get approval of PGPC/Senate, if they want to:

(i) Make courses available in the offline mode (i.e. classroom teaching)
(ii) Allow students to do courses through NPTEL/SWAYAM in lieu of department and institute elective courses (up to a maximum of 12 credits allowed), provided the course instructor is from IIT Bombay. (245th Senate Meeting)

• Project work to be carried out under the guidance (Main Supervisor) of an IIT Bombay Faculty. A co-supervisor from the parent organization is permissible.
• All examinations would be conducted at IIT Bombay only.
RULES AND REGULATIONS

1.1 Submission of Eligibility Certificates

Candidates are required to submit certificates of their qualifying degree (bachelors or masters degree in an engineering or technology discipline, or an M.Sc. and/or equivalent degree in the science discipline), industrial/work experience in relevant field, NOC etc. at the time of application for admission.

1.2 Registration

1.2.1 IIT Bombay follows a semester system, hence registration at the beginning of each semester is mandatory for every student, till he/she completes his/her programme of study.

1.2.2 All students have to clear the Institute dues (such as Semester Fees/Programme fees) before Registration.

1.2.3 On joining the Institute, every student is required to plan his/her academic programme in consultation with a Faculty Advisor of the Academic Unit, in which the student is admitted. Every student will have a faculty advisor.

1.2.4 The registration for each semester is carried out through the computerized “Online Registration” programme. Student must register themselves on the prescribed dates announced from time to time. (Refer Academic Calendar available on the academic homepage at <http://www.iitb.ac.in/newacadhome/toacadcalendar.jsp>.)

1.2.5 The Faculty Advisor shall be the competent authority to approve the course registration in all cases.

1.2.6 The Faculty Advisory Group is authorized to carry out the course registration and also adjustments as specified later. However, once the student is registered for the project work, the project supervisor also acts as a Co-faculty Advisor and assumes most of the responsibilities of the Faculty Advisor. A student is to register for courses in the beginning of the semester, which is to be done on the dates announced for the purpose.

1.2.7 A student is not permitted to re-register for a course, which he has undergone and in which he has secured AU, DD or higher grades.

1.3 Course Adjustments

Within the period prescribed in the Academic Calendar, a student can substitute one or more courses by others. For this purpose the student has to carry out Course Adjustment in consultation with his/ her Faculty Advisor. (Refer academic calendar for date of course adjustments.)

1.4 Institute Electives

Students can register for an Institute Elective course, which is offered by any academic unit (including those of non-engineering departments, centers, schools, like HSS, SOM etc.), in the online mode, other than Core/Department elective courses of their curriculum.

1.5 Programme Category and Financial Support

The student admitted to M.Eng. Programme will be under “Sponsored without Financial Support” category. There is no provision for financial support from the Institute/MHRD.

1.6 Change from M.Eng. to any of regular Masters /Ph.D. programme of the Institute

There is no provision to change from M.Eng. Programme to any other regular Masters /Ph.D. programme of the Institute.
The students of M.Eng. programme (after completing their M.Eng. Degree), may take fresh admission to regular Masters/PhD programme, subject to fulfilling the eligibility criteria of the respective programmes. Since M.Eng. Programme will consist of at least 9 postgraduate level courses, so a person joining for a PhD programme in future (after completing the present M.Eng. Degree), will need to do only that many courses (in his/her future PhD), as required of any other M. Tech. degree holder pursuing PhD.

1.7 Pattern of Courses

The courses offered may be Lecture Courses, Laboratory Courses, Design Courses.

1.8 Pattern of Credits to the course

The credits assigned to a course is dependent upon the contact hours associated with the course and is obtained by adding all these hours. The credits for all the available courses are indicated in the Courses of Study Bulletin.

1.9 Course Credit Requirement and Semester-wise Registration of Courses

The total minimum credit requirement for the entire programme is: 66 credits

<table>
<thead>
<tr>
<th>Courses</th>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Summer Semester (May - June)</th>
<th>Total Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 courses of &quot;Institute Electives&quot;</td>
<td>6 credits</td>
<td>6 credits</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>7 courses inclusive of Core and Dept. electives</td>
<td>18 – 24 credits</td>
<td>18 – 24 credits</td>
<td>12 credits of Project OR Additional courses of 12 credits (6 credits of each)</td>
<td>42</td>
</tr>
<tr>
<td>Project work (Optional) OR 2 courses of 6 credits each</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>24 – 30</td>
<td>24 – 30</td>
<td>12</td>
<td>66</td>
</tr>
</tbody>
</table>

* Student can work at a stretch for a minimum period of 2 months at the Institute, or at his/her work place, for completing the project, with permission from concerned academic unit.

• Minimum 9 courses (combining semesters 1 & 2) + one project or 2 courses (in lieu of project) in the area of specialization (Summer Semester).
• Of the minimum 9 courses, 7 courses in the area of specialization & 2 outside specialization courses (Institute Electives).
• There will be flexibility in registering courses with 3 or 4 credits, subject to completing the minimum total credit requirement of 66 credits, for completing the programme. So in this case, more than 9 courses needs to be done, to complete 66 credits.

2.0 Summer Registration

M.Eng. students are allowed to register for courses, over and above the backlog courses, in the summer semester, including Summer project, if any.
2.1 Dropping of course(s)

The last date for dropping a course by the student will be two weeks after the mid-semester examination for the semester-long courses and one week after the mid-semester examination for the half-semester courses. The last date for course drop will be included in the Academic Calendar.

2.2 Course Withdrawn grade

After the last date of course adjustment, a student can drop course(s) till the last date of dropping, as announced in the academic calendar. Such courses will appear in the transcripts and final grade card with a 'W' grade (withdrawn grade). These courses will have no impact on SPI/CPI.

2.3 Admission to M.Eng. through CEP

2.3.1 If a candidate has already done some of the full-semester duration postgraduate (PG) level courses of IITB (through CEP office), which are equivalent to that prescribed for the M.Eng. Programme (in terms of content and contact hours), then he/she can take admission to M.Eng. Programme, by paying the balance amount of the M.Eng. fees (as prescribed by the fees committee).

2.3.2 DPGC/IDPC/PGC should examine the applications and see that the PG level courses completed by the candidate in CEP are equivalent to courses recommended for M.Eng. Programme.

2.3.3 PIC, CEP will provide the details of the academic performance of the candidate.

2.4 Transfer of course credits completed under CEP after admission to M.Eng.

2.4.1 The student should apply to the PGC and through Professor In-charge (PIC), CEP for conversion of his/her credits earned through, only the PG level CEP courses, to M.Eng.

2.4.2 If a student requests for the transfer of credits towards, the M.Eng. Programme, from among the credits earned from only the PG level CEP courses completed by him/her, the period of completion of his/her M.Eng. Programme should not exceed four years from the beginning of the earliest semester from which such a transfer of credit has occurred. That is, the student must complete the programme within four years from the date of original registration for the course being transferred.

2.5 Minimum number of students required to run a particular course

Minimum of 3 students should be registered in a course to be run as a Department/Institute Elective course. If less than 3 students are registered at any given point of time, the concerned DPGC/Head of Academic units may take a decision on a case to case basis.

2.6 Course Assessment and Award of Grades

2.6.1 Grades

For every course taken by the students, he/she is assigned a letter grade on his/her combined performance in all the assessments. These grades are described by the following letters and corresponding grade points.
AA (10 points), AB (9 points), BB (8 points), BC (7 points), CC (6 points), CD (5 points), DD (4 points), FF/II (0 points), FR (0 points), DX (0 points) and W (0 points). Minimum passing grade in a course is DD.
All grades (including FR, DX, W etc.) obtained by a student will be mentioned in the transcript.

2.6.2 Failure grade : The letter grades FF and FR shall be treated as failure grades.

2.6.3 FF grade: Student may be permitted to take re-examination for the course where he/she has obtained FF grade in a given semester. After such re-examination if the student passes in that course, he/she will be awarded the maximum grade of DD in that course. If a student does not take or fails in the re-examination, he/she will be awarded the grade FR.

2.6.4 FR grade: FR grade will be awarded in case(s) where, in the opinion of the Instructor (panel of examiners in case of the Projects), the student has inadequate academic exposure to the course/has very poor performance in the in-semester and/or end-semester examinations.

2.6.5 ‘FR’ grade for Academic Malpractice
(i) “FR” grade may also be awarded for Academic malpractices. Details pertaining to Academic malpractices are available at:
http://www.iitb.ac.in/newacadhome/punishments201521July.pdf

(ii) Academic Malpractices are severely dealt with. The details pertaining to Academic malpractices are available at:
http://www.iitb.ac.in/newacadhome/punishments201521July.pdf

2.6.6 II grade: The grade II shall be awarded to a student in a course if he/she has satisfactory in-semester performance and has fulfilled the attendance requirement, but has not appeared for the semester-end examination. The student will be eligible for a make-up for the semester-end examination if the absence was due to medical reasons or extraordinary circumstances.

For re-examination, the student will have to apply to the Academic Office. In case of absence due to medical reasons, the application should be accompanied by a medical certificate issued by a Medical Practitioner. In case of absence due to extraordinary circumstances, the supporting documents should be submitted. It will be decided whether re-examination is to be allowed, after consulting with competent authority. In case a re-examination is allowed and is conducted, the instructor shall decide the final grade on the basis of sum of in-semester and the re-examination marks. The weightage of the re-examination would be the same as that of the final examination that the student has missed. In all other cases the II grade will be converted to FR grade.

2.6.7 Payment of fees for re-registering the core course in which the student has obtained ‘FR’ grade.
A student getting a FR grade has to re-register for the same course if it is a core subject, on payment of fees for the course (fees per course as prescribed by the fees committee).

If this course is an elective course, he/she may register for an alternative course as prescribed by the DPGC/ IDPC/SPGC, without this being counted as an additional course. Fees have to be paid for every repetition of a course, or for an alternative course too.

2.6.8 Attendance Rules - DX grade: ‘DX’ grade is awarded to students who have inadequate attendance as per following : IIT Bombay expects one hundred percent (100 %) attendance from its students. If the attendance of the student, as counted with effect from the first contact hour, falls below eighty percent of the total attendance expected, the instructor may award the student, a ‘Drop due to inadequate attendance’, ‘DX’ grade in that course. For the purpose of CPI calculation, the ‘Drop due to inadequate attendance’
Grade would, be treated as equivalent to a ‘Course Drop’ carried out on initiation by the student. In calculating attendance, no specific concession may be given for lack of attendance on Medical grounds. Further, if a student has 80% attendance or more, he/she cannot be awarded the ‘DX’ grade.”

The only exception to this rule is for courses where the instructor has declared that no DX grade will be awarded.

The instructor may also reserve some weightage up to a maximum of 20%, for attendance and/or class participation.

2.7 Students to continue in M.Eng. Programme after obtaining FR grades

The student is permitted to continue in the programme till a maximum duration of 4 years, even if he/she has obtained ‘FR’ grades for courses in a semester. There is no discontinuation from the programme, based on only academic performance, till the maximum programme duration of 4 years.

2.8 Audit course

The students are not allowed to take a course as “Audit (AU)” in the M.Eng. programme.

3.0 Additional Learning

The students are not allowed to tag a course as “Additional Learning (AL)” in M.Eng. programme.

3.1 Performance Requirement

For award of the M.Eng. degree, student should complete the minimum requirement of courses/project as prescribed for the programme, normally at the end of one year, or at the end of the maximum permitted duration of 4 years.

No Institute medals will be awarded for students of this programme.

The calculation of SPI/CPI is given in the following sections.

3.2 The Semester Performance Index (SPI) / Cumulative Performance Index (CPI)

**SPI:** The performance of a student in a semester is indicated by a number called the Semester Performance Index (SPI). The SPI is the weighted average of the grade points obtained in all the courses and projects taken by the student during the semester.

Example: Suppose in a given semester a student has taken five courses having credits $C_1, C_2, C_3, C_4, C_5$ and his/her grade points in those courses are $G_1, G_2, G_3, G_4, G_5$ respectively. Then his/her

$$\text{SPI} = \frac{C_1 G_1 + C_2 G_2 + C_3 G_3 + C_4 G_4 + C_5 G_5}{C_1 + C_2 + C_3 + C_4 + C_5}$$

SPI will be calculated (after re-examination, if any) on the basis of the final grades awarded AA, AB, BB, BC, CC, CD, DD and FR. The SPI is calculated up to two decimal places.

**CPI:** An up-to-date assessment from the time the student entered the Institute is obtained by calculating a number called the Cumulative Performance Index (CPI). The CPI is the weighted
average of the grade points obtained in all the courses taken by the student since he/she entered the Institute. It is calculated in the same manner as the SPI.

3.2.1 For a student who obtains a fail grade (FR) in a course more than once, the grade points/credits will figure only once in the numerator as well as denominator, respectively, for the purpose of SPI/CPI calculations.

3.2.2 In case of a student clearing a failed course, or a course taken in lieu of an earlier course as approved by the Department, the earlier failed grade would be replaced by the new passing grade in calculation of the CPI.

3.3 Overall CPI

CPI for the course credits and the project credits will be calculated together to obtain SPI/CPI and will be shown as an overall CPI.

3.4 Discontinuation from the programme

A student will be required to discontinue from the programme, if he/she fails to complete the following requirements within 4 years (maximum duration of the programme). No discontinuation on academic performance till maximum duration of the programme.

- Successful completion of the prescribed courses and project credits (if any).

3.5 Exit Option

As an exit option student shall be given a credit certificate for the courses that they have successfully completed.

3.6 Project

Normally, the project work is to be done in Summer semester (May-June), however the student can work at a stretch for a minimum period of 2 months any time during the 1 year duration of the programme at the Institute, or at his/her work place for completing the project, with permission from concerned academic unit.

When project work is done at his/her work place, it should be done in consultation with the Institute supervisor and the student is expected to be in contact with the Institute Supervisor.

3.6.1 Project Allotment

Each student shall be given a topic for his/her project work by the Faculty member of the academic unit.

Each student should have a Project Supervisor from the faculty of the Department to which he/she is admitted. In addition, Co-supervisor(s) from the same Department/other Department>IDP Group/Center/School may be co-opted by the Supervisor with the approval of DPGC/IDPC/SPGC. Co-supervisor from the organization where the student is working is admissible.

Whenever a Supervisor leaves the Institute permanently/temporarily, the DPGC/IDPC/SPGC shall make alternative arrangements for guidance during the supervisor's absence.

3.6.2 Schedule for Project Assessment

(i) The viva-voce is to be conducted under departmental arrangements at IIT Bombay.

(ii) The final grades of project assessment should be sent to Academic office within 4 days from the date of evaluation.
(iii) If extension for project presentation is required beyond one year of the duration of the programme, student shall make specific request through his/her Project Supervisor and the Head of academic unit, for extension with justification (without grade restriction) up to a specific date not more than 15 days.

(iv) There will be no grade penalty or restriction for delayed presentation or re-examination (after failure in the first presentation) of the M.Eng. project presentation. However, the student is required to pay a fine for delayed assessment (beyond 1 year duration of the programme). *(fees as prescribed by the fees committee)*

3.6.3 Committee Members for M.Eng. Project Evaluation

The Project assessment will be done by a Board of Examiners appointed by the DPGC/IDPC/SPGC consisting of the following:

(i) Supervisor (s)

(ii) Internal Examiner(s)

(iii) Chairperson/Additional Internal Examiner*: A Professor/ Associate Professor from another academic unit or a different specialization/ research area.

*: The Academic Unit may decide if a Chairperson is needed for the viva or if one of the Internal Examiners can also act as a Chairperson. In case one of the Internal Examiners is a Professor / Associate Professor, he/she may be designated to also serve as the Chairperson with prior approval of the Convener, DPGC.

3.6.4 Minimum passing grade for Project

The minimum passing grade in the project assessments shall be CC.

3.7. Temporary Discontinuation

In genuine cases and only after successfully completing the M.Eng. Programme for at least one semester, if the DPGC/IDPC/SPGC/PGC recommends temporary discontinuation, the PGAPEC may take a decision on merits for permitting such temporary discontinuation. Such cases will be governed by the following rules. However, they have to submit the following certificates at the time of rejoicing the programme:

(i) **If a break is permitted on medical ground:** He/She should submit fitness certificates from an authorized medical practitioner.

(ii) **If a break is permitted to join a job:** He/She should submit a NOC from the employer.

(iii) Joining report through the Head/Convener of Dept/Centre/School/ID groups after expiry of temporary discontinuation period.

There is otherwise no discontinuation purely based on academic performance, until the maximum duration of the programme, which is four years.

3.8 Procedure to be adopted by students for research work involving human participation/animal trial

Students whose research work involves human participation/animal trial (either directly or indirectly), should obtain IIT Bombay Institute Ethics Committee (IEC) approval prior to start of the study or the component of the study involving human participation/animal trial. IEC approval is mandatory for all such projects. In fact, this is mandated by several funding agencies also e.g. DST, DBT, CSIR and ICMR. IEC approval is also a pre-requisite for such research work to be published in peer reviewed journals of repute. IEC approval cannot be taken retrospectively.

*Updated on 11.11.2020*