# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous& NAAC Accredited Institute Affiliated to R.G.P.V., Bhopal, M.P.)

Date: 28/06/2021

## Minutes of the Academic Council Meeting

The meeting of Academic Council (AC) was held on 28<sup>th</sup> June 2021 at 11.30 A.M. onwards in the Convention Hall of the institute. The external members have attended the meeting through Video Conferencing.

The meeting was chaired by Dr. R. K. Pandit, Director of the Institute. Er. Ramesh Agarwal, Secretary, Scindia Engineering College Society (SECS) Gwalior, Shri Prashant Mehta, Member, Board of Governors (Nominee of Hon'ble Chairman, BoG) attended the meeting. Dr. Saroj Kaushik, Former Professor, IIT Delhi and Special Invitee Dr. Rommel Mehta, Former Professor, School of Planning & Architecture, New Delhi attended the meeting. Prof. Mohan Sen, Joint Director DTE Bhopal (Nominee of the Hon'ble Vice Chancellor, RGPV Bhopal) has also attended the meeting. While the nominees of BoG, Prof. Gajendra Dixit, Professor at MANIT Bhopal and Prof. R. K. Singh, Professor, University of Delhi could not attend the meeting.

Other nominee of the Hon'ble Vice Chancellor of RGPV Bhopal, Prof. R.S. Rajput, Registrar RGPV Bhopal could not attend the meeting.

## The following internal members attended the meeting:

S. No.	Name	Designation	Status in AC
1.	Dr. R. K. Pandit	Director	Chairperson
2.	Dr. Manjaree Pandit	Professor (Electrical Engineering) & Dean (Academics)	Member
3.	Dr. Laxmi Srivastava	Professor & Head, Electrical Engineering	Member
4.	Dr. M. K. Trivedi	Professor & Head, Civil Engineering	Member
5.	Dr. Anjali S Patil	Associate Professor & Head, Architecture	Member
6.	Dr. M. K. Gaur	Professor & Head, Mechanical Engineering	Member
7.	Dr. Akhilesh Tiwari Professor & Head, Department of Information Technology		Member Secretary
8.	Dr. Manish Dixit	Professor & Head, Department of Computer Science & Engineering	Member
9.	Dr. Laxmi Shrivastava	Associate Professor & Head, Electronics Engineering	Member
10.	Dr. Abhay Mishra	Professor & Head, Applied Science	Member
11.	Dr. V. Shinde Professor & Head, Engineering Mathematics and Computing		Member
12.	Dr. Sanjeev Khanna	I/C HoD, Humanities	Member
13.	Mr. Vikram S. Rajput	Training & Placement Officer and Coordinator, Management Studies	Member

min to

A Siveri

MAR

dresh

Janel Par

Page 1 of 11

14.	Prof. Swati Gupta	Assistant Professor & Coordinator, Chemical Engineering	Member
15.	Prof. Archana Tiwari	Professor, Civil Engineering	Member
16.	Dr. R. S. Jadon	Professor, MCA	Member
17.	Prof. Anil Kumar Dwivedi	Associate Professor, Civil Engineering	Member
18.	Prof. Rajendra Prasad Kori	Assistant Professor, Mechanical Engineering	Member

Dr. R. Kansal, Professor (Civil Engineering) & Dean (Students Welfare), Dr. P. K. Singhal, Professor, Electronics Engineering & Controller Examination, Dr. Pratesh Jayaswal, Professor, Mechanical Engineering & IQAC Coordinator, Dr. Sulochana Wadhwani, Professor, Electrical Engineering & OBE Manager attended the meeting as special invitees.

The following deliberations took place in the meeting.

Item: AC-1 To confirm the minutes of the last Academic Council Meeting held on 5th December, 2020.

The compliance status of the key aspects discussed and approved in the previous academic council meeting is as follows:

• Implementation of National Education Policy (NEP) 2020 at MITS Gwalior

As per the approval of the house during the last meeting, the strategic plan for the effective implementation of *National Education Policy 2020 (NEP 2020)* has been prepared. Institute is planning to implement the same in a gradual manner in the coming years (under the specific timeline i.e. up to 2024-25).

Implementation status of Multiple Mode Logical Pattern Examination (MMLPE) system

As approved by the house, the proctored examination was conducted in mixed mode (Pen paper/ Open Book / MCQ / Assignment + Oral) as per the nature of courses/subjects (based on Blooms Taxonomy/learning levels).

 Conduction of end term practical examinations through internal panel of subject matter experts / faculty members

As per the approval of the house and considering the provisions & scope under the Academic Autonomy from UGC and to further strengthen the effectiveness of evaluation and assessment process, the end term practical examination (except PG dissertations), are being conducted through the internal panel of subject matter experts / faculty members.

 Adjustment of credit requirements (in accordance with the AICTE guidelines) and weightage of theory and practical components for the award of B.Tech. degree for the batch 2020-21 onwards

As decided and approved in the last meeting, the credit requirement has been

of the state of th

Page 2 of 11

All Aman'

Sour John Source

adjusted to 160 credits for the award of the B.Tech. degree with effect from the 2020-21 admitted batch. The weightage /ratio of end-term assessment and continuous internal evaluation /assessment has also been adjusted to 60:40 in the scheme structure of UG (B.Tech programme) w.e.f the academic session 2020-21.

Further, it will be required to earn 20 additional credits (through SWAYAM/NPTEL/MOOC based learning platforms) i.e. 160 +20, for the award of Honours degree in the parent discipline / Minor Specialization in other discipline.

 Inclusion of one course through SWAYAM/NPTEL/MOOC based platform with credit transfer for the purpose of Ph.D. course work

The institute has made it compulsory for the Ph.D. scholars to opt for one course in the area of their research domain through SWAYAM/NPTEL/MOOC based platform with credit transfer for the purpose of Ph.D. course work. This provisioning / facilitation will expose the Ph.D. scholars to the emerging courses pertaining to the recent advancements in the discipline of Research /topic under study.

 Examination pattern for the courses pertaining to Mandatory Category in the existing flexible scheme / curriculum

As approved by the house in its last meeting, the examination for the courses under "Mandatory Category", were conducted in online (MCQ pattern) mode.

 Increase in the weightage of credits for "Professional Development" component for UG programmes

The credits of the "Professional Development" course in the existing flexible scheme / curriculum of UG Engineering & Technology at VIII semester has been increased from 1 to 2 credits. This will be applicable with effect from the batch admitted in 2020-21 academic session. This will help to further motivate the students towards improved contribution in the activities covered under the professional development component.

The minutes of the previous Academic Council meeting held on 5<sup>th</sup> December 2020 were confirmed and efforts made towards implementation of the same were appreciated

Item: AC-2 To consider the proposal for the provisioning of Credits for "Novel Engaging Course" (to promote Holistic Education and Informal Knowledge) in the scheme / curriculum, as per the recommendations of the National Education Policy (NEP) 2020.

In order to promote the Holistic Education & Informal Knowledge, cross-disciplinary and interdisciplinary thinking and Knowledge of Many Arts, it was proposed to introduce the provision of "Novel Engaging Course" as a part of regular courses in the Flexible Scheme / Curriculum for the UG students admitted in 2020-21 onwards. The course will be of 30 hrs. duration (in a semester) and will have a total of Four (04)

The the

M- AKTUSUL

AKE Smen's A

Page 3 of 1

July South

Credits (with the arrangement of One (01) Credit (in each semester), starting from 3rd semester to 6th semester. The institute has identified around 40 courses under different groups/categories, to be offered under the provision of "Novel Engaging Course" through in-house mentoring system and external mentoring from the various other institutions.

This facilitation will result in the smooth integration of all branches of Creative Human Endeavour in the curricula and offering of Credits through mentoring, related to- NSS, NCC, Languages, Literature, Music, Dance, Arts, Theatre, Culinary Arts, Public Speaking, Vedic Maths, Economics, Sports, Meditation, Yoga, Ayurveda, and other such subjects as a part of curricula.

The house approved the proposal of "Novel Engaging Courses" for the UG students admitted in 2020-21 onwards.

Item: AC-3 To ratify the conduction of institute level examination /re-examination for courses being offered under DE / OC category, additional courses for minor specialization / honours under the provision of different 'acceptable modes of examination' released by NPTEL for SWAYAM/NPTEL courses

It was reiterated that the institute has made the provision of SWAYAM/NPTEL/ MOOC platform based courses (under various Departmental Electives (DEs) / Open Category (OC) Courses with credit transfer facilitation and additional courses for minor specialization / honours under the flexible scheme /curriculum from the admitted batch 2017-18 onwards. In this connection, it was proposed to consider the following ratifications:

- a) A student who fails to earn credits in the SWAYAM / NPTEL / MOOC based Courses (offered under the category of DE / OC courses) can appear in the institute level examination to pass that course and earn credits (without considering these as 'Credit Transfer from MOOCs').
- b) In case the student fails in the assignment of SWAYAM /NPTEL / MOOC platform based courses under DE and OC category, the student needs to resubmit the assignments as given by the institute mentor faculty of the course and he/she can appear in the institute level end semester examination to pass the course and earn credits. Credits earned in this manner will not be treated as 'Credit Transfer from MOOCs'.
- c) Special provision of institute level examination for courses opted for minor specialization /Honours is facilitated only for the B.Tech. Final year students, during the COVID period only. However, to avail this provision it is mandatory to obtain pass marks in the assignment conducted by NPTEL/MOOC course offering agency.

d) The institute has conducted institute level examinations (in June 2021) for Honours and Minor Specialization courses for B. Tech final year (2017-18

Page 4 of 11

admitted batch). For the purpose of tabulation of result of Honours and Minor specialization courses (additional courses), the same marks as scored by the student in the institute level end semester examination will be considered. These marks will have no impact on the SGPA of B. Tech VIII semester, but only fulfil the criteria of earning additional credits.

e) Allowing the students to 'appear in the examination' of more than two additional courses (from SWAYAM / NPTEL / MOOC platforms towards fulfilment of requirements of minor specialization/honours) in a semester. However, as per the provisions of flexible scheme/curriculum, effective from 2017-18 academic session, a student is permitted to 'register' for only two additional courses from SWAYAM / NPTEL / MOOC platforms in a semester (starting from V semester onwards) from the list of courses approved by the respective Board of Studies.

## The house has noted and approved.

Item: AC-4

To consider the proposal regarding the ratification of the eligibility criteria for the award of Honours degree at UG level.

Under the flexible curriculum, the institute has provisioned the award of degree with Honours at UG level (from 2017-18 admitted batch onwards) on completion of 20 additional credits through SWAYAM/NPTEL/MOOC based Courses (from the list of courses approved by the respective Board of Studies for the purpose, from the V Semester onwards). Furthermore, it was earlier approved (Vide minutes of AC meeting on 7th December 2019: Item no AC-8) by the house that the student has to maintain a minimum 6.5 CGPA (throughout the degree) to be considered for "Honours" degree. In this context, it was proposed to consider the following eligibility criteria

"The minimum CGPA required for the award of B. Tech degree with Honors is 6.5 CGPA up to VIII semester, and the duration of completion of degree must be the stipulated time period i.e. 04 years only"

### The house approved the proposal

Item: AC-5

To consider the proposal regarding the ratification pertaining to the eligibility criteria for the award of degree with Minor Specialization at UG level.

Under the flexible curriculum, the institute has provisioned the award of degree with Minor Specialization at UG level (from 2017-18 admitted batch onwards) on completion of 20 additional credits through SWAYAM/NPTEL/ MOOC based Courses (from the list of courses approved by the Board of Studies of the offering department) (from the V Semester onwards). Furthermore, it was earlier approved (Vide minutes of AC meeting on 7<sup>th</sup> December 2019: Item no AC-8) by the house that the student has to maintain the minimum 6.5 CGPA (throughout the degree) to be

Jul M

100 p

Also Also

Amen's fan

Pluty South

Page 5 of 11

considered for the degree with "Minor Specialization".

In this context, it was proposed to consider the following eligibility criteria

"For the award of B. Tech degree with "Minor Specialization", students must complete their degree in the stipulated time period of four years only".

### The house approved the proposal

Item: AC-6 To discuss and consider the proposal for the 'provision for different modes of teaching' (methodology for teaching) in the scheme/curriculum, as per the nature of course, effective from the batch admitted 2020-21 onwards.

Considering the recommendations of National Education Policy 2020, UGC and to promote the learning & teaching with the blending of different modes and activities, it was proposed and discussed to provision the 'different modes of teaching' (methodology for teaching) in the scheme/curriculum with effect from the batch admitted 2020-21 onwards. The proposed modes will include the provision of offline (in class / face-to-face) / online / blended learning teaching as per the nature of the course, as detailed below

Offline: Courses which are more oriented towards design or are algorithmic /computational in nature

Online: Courses which are more theoretical in nature

Blended: Subjects which are of partially computational/design /programming nature (i.e. conceptual building part can be covered in online mode + computing /design part in offline mode or for MOOC based courses, the mentoring slot (for discussion, queries, solving assignments) can be conducted in offline mod, (except in VIII semester)

Moreover, the Blended Mode will not only focus on the online /offline coverage and delivery of contents, but it can be a blend of many things such as participatory activities, interactive activities, on-site activities, group based activities, small project based learning etc. (i.e. a well-planned and dynamic combination of meaningful activities in both modes) under the course/subject of study.

The content delivery / offering in online mode will not be more than 40%.

#### The house approved the proposal

Item:

AC-7

To discuss and consider the provision of assigning weightage to "course proficiency" in the end semester examination to reflect skills /abilities /competences and knowledge gained on a continuous basis.

It was proposed to provision the weightage towards the "course proficiency" component in the end semester (theory part) for every course (except the Departmental Lab Course). Of the total 60 marks; the weightage of 10 marks will be considered towards the "course proficiency" wherein the ability/ skill/ competence

Page 6 of 1

/knowledge level /expertise attained /attendance etc. in that particular course/subject will be assessed and considered. The "course proficiency" part will also be considered towards the indirect assessment purpose through various other activities such as 'course end seminar, one-minute paper writing' etc. This will help to further improve and strengthen the internal continuous assessment mechanism.

The end term evaluation will be of 50 marks (through the end term examination) and the "course proficiency" component will be of 10 marks.

This is effective from the batch admitted 2020-21 onwards.

### The house approved the proposal

Item:

To consider the inclusion of the "concept of skill" in the scheme/ curriculum through the provisioning of 'Skill Based Mini Project' component (with effect from the batch admitted 2020-21 onwards).

To promote skill development and creativity, it was proposed to induce the concept of skill in the curriculum through the provisioning of 'Skill Based Mini Project' for every course/subject (of practical nature) except for the Departmental Lab Course (DLC). The weightage of 20 marks will be given for the 'Skill Based Mini Project' (under the practical part of the scheme) in the flexible scheme/ curriculum with effect from the batch admitted 2020-21 onwards.

### The house approved the proposal

Item:

To consider the proposal for the inclusion of 'Mandatory Audit Courses' (MAC) for the admitted batch 2020-21 onwards.

AC-9

As per the recommendation of AICTE Model Curriculum 2018, it was proposed to include the following "Mandatory Audit Courses" at the UG level for the batch admitted 2020-21 onwards.

Course
Biology for Engineers
Indian Constitution and Traditional Knowledge
Disaster Management
Intellectual Property Rights (IPR)

Moreover, the end term examination will be conducted by the examination section of the institute and grades will be shown on the respective mark-sheets; however, there will be no credits for these MACs.

The house approved the proposal

M. +2

\$

1 - S

Aswal.

July 1

And Anisak

Item:

To ratify the result computation criteria for the preparation of result of UG / PG programmes during COVID-19 pandemic.

AC-10

(a) Criteria for the calculation of the results of M.E. and M.Tech

The following criteria for the calculation of the results of M.E. and M.Tech. of first semester (batch admitted 2020-21) was formulated / adopted

- 1. For the award of end semester theory exam marks:
  - (i) The weightage of end semester theory marks (out of 70) converted to 50
  - (ii) The weightage of internal/continuous assessment marks (out of 30) converted to 20

Computation of end semester theory marks out of 70 = (i) + (ii) = 50+20

- 2. Marks for practical end semester and sessional, mid semester examinations, assignment / quiz considered as awarded by the faculty / examiner
- (b) Criteria for the calculation of the results of UG Programme (B.Tech.) first semester (batch admitted in 2020-21)

The following criteria for the calculation of the results of B.Tech. First Semester (batch admitted 2020-21) was formulated / adopted

- 1. For the award of end semester theory exam marks:
  - (i) The weightage of end semester theory marks (out of 60) converted to 50
  - (ii) The weightage of internal/continuous assessment marks (out of 40) converted to 10

Computation of end semester theory marks out of 60 = (i) + (ii) = 50+10

- 2. Marks for practical end semester and sessional, mid semester examinations, assignment / quiz considered as awarded by the faculty / examiner.
- (c) Regarding the criteria for the calculation of marks for the institute level examination of MOOC (SWAYAM/NPTEL) courses conducted on MOODLE

The institute has conducted institute level examination for the MOOC (SWAYAM/NPTEL) courses for the students who were not able to appear in SWAYAM/NPTEL examinations or do not attain the required pass marks for credit transfer. For such cases, the marks calculation criteria, as given by RGPV Bhopal for open book examination was applied.

(d) Regarding the criteria for the calculation of marks for the institute level examination of MOOC (SWAYAM/NPTEL) courses under Departmental Elective –IV (DE-IV) / Departmental Elective-V (DE-V) courses (offered in B.Tech. and B.Arch. VII sem)

M. di

M.

JAN. A

Juan 1

Puly for the

The institute has conducted examination for DE-IV / DE-V courses (offered in B.Tech. and B.Arch. VII sem) for the students who were failed or absent in the exam conducted by NPTEL. Further, for the purpose of processing of result of such students for Dec. 2020 session, end semester and assignment marks was considered as per the following criteria

- (i) End Sem. (out of 75) 50% marks scored + 50% of SGPA of previous semester
- (ii) Assignment (out of 25)
  Same as awarded by NPTEL (if pass), else revised marks on the basis of revised assignments
- (e) Regarding the criteria for consideration of Modified Pass Certificate (MPC) issued by NPTEL

As per the flexible scheme of B.Tech. VI semester, the courses under one Departmental Elective (DE-II) were being offered through MOOC during Jan-June 2020. In accordance to this, the students registered themselves in various NPTEL courses as approved by the respective Board of Studies (BoS). However, due to COVID-19 pandemic situation, the students could not appear in online exam conducted by NPTEL and were issued Modified Pass Certificate (MPC).

Further, for the preparation of result of Jan.-June 2020, the marks available on MPC were distributed in to Assignment (25 marks) and End Semester (75 marks) and grace of 5 marks was also given to the students (if failing as per the MPC score issued by NPTEL). The criteria of grace marks in courses under MOOCs were followed for the declaration of June 2020 result only (as a one-time provision) due to prevailing COVID-19 condition.

#### The house has noted and approved

AC- To apprise the constitution of new Board of Studies (BoS) in the disciplines/departments of Engineering Mathematics and Computing, Information Technology and Management.

It was submitted before the house that, to meet the emergent requirement for the conduction of meeting of Board of Studies (BoS) of newly created departments (Engineering Mathematics and Computing, Information Technology, and Management Studies) for the framing/design of schemes and curriculum, the Board of Studies (BoS) were formed (considering the proposed constitution from the respective Heads of the departments).

#### The house has noted the same

Item:

To review and approve the minutes of meeting of Board of Studies (BoS) held in the month of June 2021 through video conferencing.

AC-12

The deliberation of Board of Studies (BoS) were presented by the HoDs/Chairpersons

Me W.

8

Mil Ariwan.

Jos In Pluly

of the following departments:

[Civil, Mechanical, Electrical, Electronics, Computer Science & Engineering, Information Technology, Engineering Mathematics and Computing, Chemical Engineering, Architecture, Applied Sciences, Humanities, Management Studies].

The presentation covered the following Agenda points of the respective BoS:

Item 1:	To propose the list and syllabi for all <i>Departmental Elective (DE)</i> Courses of <i>VII Semester</i> under the flexible curriculum along with their COs (Batch admitted in 2018-19)	
Item 2:	To propose the list of courses which the students can opt from SWAYAM/NPTEL/MOOC Platform, to be offered in <i>online mode under Departmental Elective (DE) category</i> , for credit transfer in the <i>VII Semester (Batch admitted in 2018-19)</i>	
Item 3:	To propose the list and syllabi for all <i>Open Category(OC)</i> Courses of <i>Semester</i> under the flexible curriculum along with their COs ( <i>Batch admitted</i> 2018-19)	
Item 4:	To propose the list of "Additional Courses" which can be opted for getting an  (i) Honours (for students of the host department) (ii) Minor Specialization (for students of other departments) [These will be offered through SWAYAM/NPTEL/MOOC based Platforms forthe V semester (for the batch admitted in 2019-20) and for VII semester students (for the batch admitted in 2018-19)]	
Item 5:	To review and update the syllabi for all <i>Departmental Core (DC) Courses</i> of <i>V&amp; VII Semester(for batches admitted in 2018-19 &amp;2019-20)</i> under the flexible curriculum along with their COs	
Item 6:	To propose the list of courses which the students can opt from SWAYAM/NPTEL/MOOC Platform for Seminar/Self Study Courses in V Semester(Batch admitted in 2019-20)	
Item 7:	<ul> <li>To prepare and recommend the Scheme &amp; Syllabi (along with the Course Outcomes) of III &amp; IV semester of the newly started B. Tech. programme(s) in the emerging areas (EE-IoT, IT-IoT, IT-AIR and MAC) (started from 2020-21 Session)         {Applicable for the concerned departments MAC, IoT(EE) &amp; IT-IoT, ITAIR}</li> <li>Scheme &amp; Syllabi (along with the Course Outcomes) of III &amp; IV semester of the B.Tech students of 2020-21 admitted batch according to the revised structure</li> </ul>	
Item 8:	To review and finalize the Experiment list/ Lab manual for Laboratory Courses to be offered in V and VII semester (Batches admitted in 2018-19& 2019-2020)	
Item 9:	To propose a suggestive list of projects which can be assigned under the 'Skil based mini-project' category in various laboratory courses to be offered in July December 2021	

Mr. Harry

De mine

H Strong

Jans Jo

	Item 10:	To review the CO attainments for July-December 2020 semester, to identify gaps and to suggest corrective measures for the improvement in the CO attainment levels
	Item 11:	To review curricula feedback from various stakeholders, its analysis and impact
	Item 12:	To review course outcomes (COs) feedback of various courses, its analysis and impact
	Item 13:	To present matters, if any, related to new curriculum/structure PG programme (Batch admitted in 2020-21) needing ratification in the forthcoming Academic Council meeting
	Item 14:	Any other department specific matter(s)

The meeting ended with the vote of thanks to the Chair.

(Prof. Swati Gupta)

Studies (BoS).

(Prof. Rajendra Prasad Kori)

( Prof. Anil Kumar Dwivedi)

(Dr. Akhilesh Tiwari) Member Secretary

Sulnhare (Dr. Sulochana Wadhwani)

(Dr. P.K. Singhal)

Present on-line

(Dr. Saroj Kaushik) External Expert

(Shri. Prashant Mehta) Member, BoG

Director

(Dr. Anjali S. Patil)

(Dr. Vikas Shinde)

(Dr. M.K. Gaur)

(Dr. Abhay Mishra)

Aswari (Prof. Archana Tiwari)

(Dr. Laxmi Srivastava)

Present on-line

(Dr. Rommel Mehta) External Expert

Neru (Er. Ramesh Agarwal) Member, BoG

(Dr. Sanjeev Khanna)

(Dr. Laxmi 8hrivastava)

(Dr. Manish Dixit)

(Dr. Pratesh Jayaswal)

(Dr. Manjaree Pandit)

Dean Academics Present on-line

(Prof. Mohan Sen) External Expert