# उत्तर प्रदेश प्राविधिक विश्वविद्यालय, लखनऊ की विद्या परिषद की दिनांक 19 मई, 2015 को प्रात 11.00 बजे सम्पन्न हुई 44वीं बैठक का कार्यवृत्त :—

बैठक में निम्नलिखित उपस्थित हुए :--

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1.	प्रो0 ओंकार सिंह,	अध्यक्ष
	कुलपति,	
	उत्तर प्रदेश प्राविधिक विश्वविद्यालय, लखनऊ।	
2.	प्रोo जगवीर सिंह,	सदस्य
	प्राचार्य/डीन फैकेल्टी आफ आर्किटेक्चर,	7
	उत्तर प्रदेश प्राविधिक विश्वविद्यालय, लखनऊ।	4-
3.	प्रो० ए०एस० विद्यार्थी	सदस्य
	निदेशक,	
	आई०ई०टी०, लखनऊ।	
4.	डा0 विमल मिश्रा	सदस्य
	निदेशक,	
	आई०ई०आर०टी०, इलाहाबाद	
5.	सुश्री एस0पी0 वर्मा	विशेष आमंत्री
	वित्त अधिकारी	
	उत्तर प्रदेश प्राविधिक विश्वविद्यालय, लखनऊ।	
6.	श्री के0के0चौधरी,	सचिव
	कुलसचिव,	
	उत्तर प्रदेश प्राविधिक विश्वविद्यालय, लखनऊ।	

बैठक में निदेशक, आई0आई0टी0, रूड़की तथा निदेशक, आई0आई0टी0, कानपुर द्वारा नामित सदस्य, प्रो0 रघुराज सिंह, निदेशक, के0एन0आई0टी0, सुल्तानपुर एवं प्रो0 एस0 डी0 पाण्डेय, निदेशक के0एन0जी0डी0, मोदीनगर, गाजियाबाद उपस्थित नहीं हो सके। परिषद के अध्यक्ष महोदय की अनुमति से बैठक की कार्यवाही प्रारम्भ की गयी। मद सं. 44.01 उत्तर प्रदेश प्राविधिक विश्वविद्यालय की विद्या परिषद की दिनांक 09 अप्रैल, 2015 को सम्पन्न हुई 43वीं बैठक के कार्यवृत्त का पुष्टिकरण।

> विश्वविद्यालय की विद्या परिषद की दिनांक 09 अप्रैल, 2015 को सम्पन्न हुई 43वीं बैठक के कार्यवृत्त का परिषद द्वारा अवलोकन करते हुए कार्यवृत्त की पुष्टि की गई।

मद सं. 44.02 उत्तर प्रदेश प्राविधिक विश्वविद्यालय की विद्या परिषद की दिनांक 09 अप्रैल 2015 को सम्पन्न हुई 43 वीं बैठक में लिये गये निर्णयों पर की गई कार्यवाही का पुष्टिकरण।

> विद्या परिषद की दिनांक 09 अप्रैल, 2015 को सम्पन्न हुई 43वीं बैठक में लिये गये निर्णयों पर कृत्त कार्यवाही के विवरण का अवलोकन कर परिषद द्वारा अवलोकित किया गया तथा कृत्त कार्यवाही पर सहमति के साथ ही निम्नांकित बिन्दुओं के संम्बन्ध मे निम्नवत सुझाव दिये गये।

> मद सं0 43.03 उ०प्र0 प्राविधिक विश्वविद्यालय से सम्बद्ध संस्थाओं में सत्र 2015—16 अध्ययनरत छात्र—छात्राओं को दूसरी संस्था में अध्ययन करने हेतु अनुमति दिये जाने पर विचार।

# निर्णय

# कार्यवाही

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उ०प्र० प्राविधिक विश्वविद्यालय से सम्बद्ध संस्थाओं में सत्र 2014–15 अध्ययनरत छात्र–छात्राओं को दूसरी संस्था में अध्ययन करने हेतु परिषद द्वारा पूर्व गठित समिति के सदस्य प्रो० डी० एस० यादव, पूर्व प्रतिकुलपित, उ०प्र०प्रा०वि०, लखनऊ के स्थान पर प्रो० ए०एस० विद्यार्थी निदेशक, आई०ई०टी०, लखनऊ को समिति का सदस्य नामित किया गया है। ताकि इस प्रकरण पर सनयबद्ध कार्यवाही पूर्ण की जा सके।

परिषद के निर्णय अनुसार विश्वविद्यालय के कार्यालय ज्ञाप संख्या उ०प्र०प्रा०वि०/कुस०का०/ शैक्षाणिक2015/4573-80 दिनांक 16 मई, 2015 के द्वारा समिति का पुनर्गठन किया गया। समिति की आख्या अभी तक प्राप्त नही हुई है। प्रकरण में कार्यावाही अपेक्षित है।

 परिषद द्वारा पूर्व गठित समिति को भंग करते हुए ऐसे प्रकरणों में विश्वविद्यालय के आर्डिनेंस में निहित प्राविधानों के अन्तर्गत ही स्टडी सेन्टर (अध्ययन केन्द्र) बदलने की कार्यवाही केश टू केश आधार पर किये जाने

# हेतु निर्देशित किया गया।

मद सं0 43.08 उत्तर प्रदेश के विकास हेतु शासन के ऐजेन्डा वर्ष 2015–16 के सूत्र सं. 73 प्रदेश के उच्च शिक्षण संस्थानों मे शोध कार्यो के प्रोत्साहित करने के लिए लेबोरेट्री एवं आनलाइन जरनल की व्यवस्था पर विचार।

# निर्णय

# कार्यवाही

उत्तर प्रदेश प्राविधिक विश्वविद्यालय प्रकरण में कार्यवाही अपेक्षित है। एवं उनसे सम्बद्ध संस्थानों में शोध कार्य को प्रोत्साहित करने के लिए AICTE के नियमानुसार विश्वविद्यालय से सम्बद्ध संस्थानों में लेबोटरी एवं आनलाइन जरनल की व्यवस्था हेतु सभी संस्थान विशेष कर उन संस्थानों में जहां शोध कार्य चल रहा हो को निर्देशित किये जाने पर सहमति प्रदान की गई है।

- परिषद ने प्राविधिक विश्वविद्यालय में आन—लाइन जर्नल एवं ई—कंटेन्ट की
   व्यवस्था किये जाने के सम्बन्ध में निम्ननांकित तीन सदस्य समिति गठित कियाः—
  - 1. डा0 वंदना सहगल, (संयोजक)
    - फैक्लटी आफ आर्कटेक्चर, यू०पी०टी०यू०, लखनऊ
  - 2. डा0 मनीष गौड

आई०ई०टी०, लखनऊ।

3. डा० एम० एच० खान

आई०ई०टी०, लखनऊ।

उक्त समिति से परिषद ने अपेक्षा कि है कि विश्वविद्यालय में पंजीकृत शोध छात्रों हेतु आन—लाइन जर्नल एवं ई—कन्टेन्ट की व्यवस्था के लिए अपनी सुविचारित आख्या विश्वविद्यालय को यथाशीघ्र उपलब्ध कराये।

मद स. 44.03

उत्तर प्रदेश प्राविधिक विश्वविद्यालय की परीक्षा समिति की दिनांक 09.05.2015 एवं 13.05.2015 को सम्पन्न हुई 51 वीं बैठक के कार्यवृत्त का पुष्टिकरण।

विश्वविद्यालय की परीक्षा समिति की दिनांक 09.05.2015 एवं 13.05. 2015 को सम्पन्न हुई 51 वीं बैठक के कार्यवृत्त का अवलोकन किया गया तथा उक्त पर परिषद द्वारा पुष्टि प्रदान की गई।

मद सं. 44.04 एम0आई0टी0 कैम्ब्रीज मीडिया लैब (यू०एस०ए०) के सहयोग से आई0ई0टी0, लखनऊ सहित एम0एम0एम0यू0टी0, गोरखपुर, एच0बी0टी0आई0, कानपुर एवं यू0पी0टी0टी0आई0, कानपुर में इनोवेशन एण्ड इनक्यूवेशन सेन्टर की स्थापना के सम्बन्ध में विचार करना।

> एम0आई0टी0 कैम्ब्रीज मीडिया लैब (यू0एस0ए0) के सहयोग से आई०ई०टी०, लखनऊ, एम०एम०एम०यू०टी०, गोरखपुर, एच०बी०टी०आई०, कानपुर एवं यू०पी०टी०टी०आई०, कानपुर में इनोवेशन एण्ड इनक्यूवेशन सेन्टर की स्थापना के सम्बन्ध में परिषद की बैठक से पूर्व आज दिनाक 19.05.2015 को प्रातः 10:00 बजे विश्वविद्यालय के सभाकक्ष में उपरोक्त संस्थानों के निदेशकों / अधिष्ठाता के समक्ष एम0आई0टी0 कैम्ब्रीज मीडिया लैब (यू०एस०ए०) के प्रतिनिधि श्री ज्योति मित्रा द्वारा मा० कुलपति महोदय की अध्यक्षता में प्रस्तुतिकरण किया गया। परिषद द्वारा इनोवेशन एण्ड इनक्यूवेशन सेन्टर की स्थापना के सम्बन्ध में पूर्व में गठित समिति की आख्या (अनुलग्नक-1) से अवगत होते हुए आज ही प्रकरण पर संस्थाओं के निदेशक/अधिष्ठाता तथा एम0आई0टी0 प्रतिनिधि के साथ प्रथम बार सम्पन्न बैठक के कार्यवृत (अनूलग्नक-2) तथा एम0आई0टी0 द्वारा प्रस्तुत ड्राफ्ट एम0ओ0यू0 (अन्लग्नक-3) का संज्ञान लिया गया। उक्त बैठक में लिये गये निम्न निर्णयों पर एम0ओ0य0 से आच्छादित होने वाली संस्थाओं के निदेशक/अधिष्ठाता के स्तर से समस्त वांछित कार्यवाही पूर्ण होने के उपरान्त अग्रिम कार्यवाही करने पर परिषद द्वारा सहमति प्रदान की गई।

 The institutions were of the view that more time should be given to study the draft MoU presented by the MIT Media representative and no conclusion can be arrived at with the discussions held.

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- Separate financial proposal be sent form the participating institutions for strengthening the infrastructure at respective institutions and financial support be extended for the required infrastructure before MoU is executed.
- Core Group of faculty members from each institute should be identified to take this project forward before finalizing MoU

मद सं. 44.05

उत्तर प्रदेश प्राविधिक विश्वविद्यालय द्वारा विश्वविद्यालय के नोएडा परिसर में इंस्टीट्यूट आफ डिजाइन एण्ड टेक्नोलाजी की डी0पी0आर0 में संशोधन एवं नया पाठ्यक्रम सम्मिलित करने पर विचार।

परिषद द्वारा खक्त प्रस्ताव पर सैद्धान्तिक सहमति के साथ नया पाठ्यक्रम (टेक्सटाइल मशीन व प्रासेस डिजाइन) को सम्मिलित करने हेतु उ०प्र0व0प्रौ0 संस्थान, कानपुर के सहायक प्रवक्ता डा० जे०पी० सिंह के अनुरोध पत्र पर विचार हेतु निम्नांकित समिति का गठन किया गया:--

 प्रो0 ए०एस0 विद्याक्षी निदेशक, आई0ई0टी0, लखनऊ।

2. प्रो0 रघुराज सिंह

निदेशक, के०एन०आई०टी०, सुलतानपुर।

परिषद द्वारा उक्त के सम्बन्ध में गठित समिति की आख्या पर मा0 कुलपति महोदय के स्तर से अंतिम निर्णय लिये जाने हेतु अधिकृत किया गया।

मद सं. 44.06 उत्तर प्रदेश प्राविधिक विश्वविद्यालय से सम्बंद्ध संस्थानों में एकेडमिक आटोनामी पर विचार।

> उ०प्र० प्राविधिक विश्वविद्यालय से सम्बंद्ध संस्थानों में एकंडमिक आटोनामी के सम्बन्ध में पूर्व में गठित समिति की संस्तुतियों में से बिन्दु संख्या 02 जो कि बी०ओ०जी० के सम्बन्ध में है को छोडते हुये अनुलग्नक–04 पर संलग्न रेगुलेशन फार इम्पलीमेंटेशन आफ आटोनामी इन इंस्टीट्यूसन्स एफिलिएटेड टू यू०पी०टी०यू० लखनऊ के क्रियान्वन किये जाने पर परिषद द्वारा अनुमोदन प्रदान कर दिया गया।

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अध्यक्ष महोदय की अनुमति से अन्य मद।

 उ०प्र० प्राविधिक विश्वविद्यालय के पी--एच0डी० कार्यक्रम के अन्तर्गत सत्र 2014-15 की प्रवेश प्रक्रिया में विश्वविद्यालय द्वारा की गई कृत कार्यवाही तथा विश्वविद्यालय द्वारा गठित समिति की दिनांक 18.05.2015 की बैठक में लिये गये निम्नवत इंगित निर्णयों
 1. Criteria for Basic and Applied Sciences:>= 40% Marks.

 Criteria for Engineering, Technology, Textile Chemistry, Architecture & Planning and Pharmacy: > = 50% Marks.
 Criteria for Management:>=60% Marks.
 के आधार पर कट—आफ अंक निर्धारित करते हुये विधावार सफल अभ्यर्थियों की घोषणा किये जाने पर परिषद द्वारा अनुमोदन प्रदान किया गया।

अन्त में अध्यक्ष महोदय को धन्यवाद के साथ बैठक सम्पन्न हुई।

(के०के0 चौध सचिव

अनुमोदित

(प्रोo ओंकार सिंह) अध्यक्ष

# Minutes of the Meeting

n Reference to registrar's letter regarding setting up of innovation and incubation enters at four of its affiliated/constituent institutes by MIT Media lab, USA, a meeting of the committee was held on April 02, 2015 at 2:00 PM in the University.

The following members attended the meeting,

1. Prof. A.S. Vidhyarthi, Director, IET, Lucknow

2. Prof. Raghuraj Singh, Director, KNIT, Sultanpur

3. Prof. B.N. Mishra, COE, UPTU, Lucknow

The Proposal of MIT Media Lab, USA for setting up of "Urban Innovation Living Lab" (Innovation and incubation center) has been studied and discussions on various a spects of project were held again today in a structural manner with reference to TOR g iven to the committee. The following are the highlights of the proposal.

- The innovation & incubation facility will be developed by the UP Government in following key areas:
  - 1. Computer Science, Information Technology, Electronics & Communication, Electrical Engineering at I.E.T. Lucknow
  - 2. Civil and Chemical Engineering at H.B.T.I. Kanpur
  - 3. Textile Engineering at U.P.T.T.I. Kanpur
  - 4. Mechanical Engineering at M.M.M. University, Gorakhpur
- The MIT Media Lab, USA proposes to collaborate with these incubation facilities established by the Government of Uttar Pradesh through UPTU for creating, testing, analyzing, and deploying innovation within India.
- These State-of-Art facilities will encourage entrepreneurship among the young scientists and researchers of the institute and other parts of the state and help them to innovate around the needs and challenges of the state. The research topics for first two years in above centers will be focused on urban innovations and are as following:
  - Urban Analytics and Modeling: Big data analytics with focus on data driven approach to designing urban spaces and systems at I.E.T., Lucknow

mobility, shared used vehicle systems at M.M.M. University, Gorakhpur

- Urban Food-on-demand Urban food systems addressing food security and water scarcity problem by using aeroponic technology at H.B.T.I., Kanpur
  - o Urban Smart Textile Innovative shading systems by enabling digital

The committee also reviewed the report of the committee formed earlier for the same puppose. The earlier committee consists of the following members,

Frof. C.L. Khetrapal, Director, CBMR, SGPGI Lucknow

Prof. Krishna Misra, Hon. Prof. CBMR, SGPGI Lucknow

Prof. B.N. Mishra, COE, UPTU, Lucknow

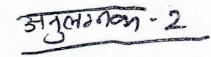
Sri Anuj Pandey, AO/FO, UPTU, Lucknow

5 Prof. G.N. Pandey, VC Arunanchal Pradesh University

S Prof. P.K. Seth, CEO, Biotech Park, Lucknow

T The Committee deliberated on various issues of proposal and response on the query railed by the committee. The following are the notable recommendations of the committee:-

- 1. The proposed project is quite comprehensive and clearly states scope of work and various deliverables.
- 2. These centres will provide the backbone for encouraging and implementation of innovation in the country and benefit the Society & Industry, if implemented as per it's given objectives.
- 3. Since the project involves multidimensional activities involving high degree of innovation, novelty and technology up gradation in various fields, committee feels that for its successful implementation, there should be a Governing body (chaired preferably by VC, UPTU) of experts having knowledge of State of the Art in various fields to monitor to project.
- 4. Committee recommend to sign the requisite tripartite MOU with MIT Media Lab directly by the UPTU and the Institutes where proposed Innovation Centres has to be established keeping the following points into consideration:-
  - (a) The execution agency must be an autonomous body in its true sense and there should be a lien time for establishment of Innovation Centre(s).
  - (b) The number of professors/ staffs from MIT Media Lab will visit and stay at the proposed centre at IET/UPTU.
  - (c) The schedule to work at the centre IET and the mode of interaction with other centres at HBTI, UPTTI and MMMUT.
  - (d) The basic infrastructure along with Hardware and software needed to run the Urban Living Lab and other centres should be clearly spell out.
  - (e) What would be IPR of IET/UPTU/MIT Media/ MIT and the students and faculty working in the centres on product and design developed during this MOU.



Minutes of the meeting held at UPTU Lucknow at 10 AM on 19th May 2015 regarding setting up Incubation and Innovation Unit in collaboration with MIT Media Lab, USA.

# Following were present

- 1. Prof Onkar Singh, Vice Chancellor, UPTU
- 2. Prof A S Vidyarthi, Director, IET Lucknow
- 3. Prof A K Nagpal, Director, HBTI Kanpur
- 4. Dr D B Shakayawar, Director, UPTTI Kanpur
- 5. Prof S K Srivastava, Dean Academics, MMMUT, Gorakhpur
- 6. Dr Manish Gaur, IET Lucknow
- 7. Mr K K Chowdhary, Registrar, UPTU
- 8. Ms. S P Verma , Finance Controller, UPTU
- 9. Mr Jyotimitra Raghuvansh, Research Affiliate, MIT Media Lab

The opening remarks were given by the Hon'ble Vice Chancellor. He explained that the role of UPTU will be that of a felicitator and in view of the four different institutions are proposed to be getting roped in the MoU with MIT,USA the deliverables used to be explicitly defined and it is only the sole responsibility of the respective participating institutions.

- Mr Joytimitra from MIT Media-Lab presented an elaborated view on the objectives, plan and methods of tieups envisaged with four state institutions i.e. IET Lucknow, HBTI Kanpur, MMMUT Gorakhpur and UPTTI, Kanpur and MIT Media Lab.
- Prof A.S. Vidyarthi, Director IET Lucknow raised concerned about the structure and process of setting up Incubation and Innovation Units. The concerns about sharing of IPRs were also raised. Prof Vidyarthi was of the view that sharing of IPR should be on mutual benefit basis.
- 3. Prof A.K. Nagpal, Director HBTI Kanpur, raised concerns about the limited resources in terms of expertise available in the departments. The area proposed by MIT in its draft MoU does not exist in his Institute. However if any relevant area in civil/chemical engg. may be taken up after consultation with the concerned faculty. He raised a concern that delay in purchase procedures are major bottlenecks in implementing time bound activities. A simplified method for purchase and requisite number of faculty could be the requirements.

- 4. Dr D.B. Shakyawar, Director UPTTI Kanpur was of the view that consortium should permit the involvement of the similarly placed institutions/departments in the research and innovation.
- 5. Prof S K Srivastava, Dean Academics, MMMUT Gorakhpur emphasized that there should be common web platform where the researchers can share their problems, expertise and infrastructure available in different centers.
- 6. Further, Mr Jyotimitra of MIT Media Lab replied to all concerns but the human resource availability is the sole issue of participating institutions.
- Prof Onkar Singh, Vice Chancellor enquired about the cost aspect of the membership fee. Mr Mitra informed that is approximately USD 3 million within a span of two years.

The following were resolved:

- 1. The institutions were of the view that more time should be given to study the draft MoU presented by the MIT Media representative and no conclusion can be arrived at with the discussions held.
- Separate financial proposal be sent from the participating institutions for strengthening the infrastructure at respective institutions and financial support be extended be extended for the required infrastructure before MoU is executed.
- Core Group of faculty members from each institute should be identified to take this project forward before finalizing MoU.

(Prof A S Vidyarthi)

(Prof S K Srivastava) votinitra Raghuvansh)

(Mr KK Chow

(Prof D B Shankhyawar)

(MSSP Verma Gaur

(Prof Onkar Singh)

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#### MASSACHUSETTS INSTITUTE OF TECHNOLOGY OFFICE OF SPONSORED PROGRAMS MEDIA LABORATORY CONSORTIUM

CONSORTIUM AGREEMENT (the "Agreement") between the MASSACHUSETTS INSTITUTE OF TECHNOLOGY, hereinafter referred to as "MIT", and UTTAR PRADESH TECHICAL UNIVERSITY, hereinafter referred to as "the Member."

WFIEREAS the Media Laboratory Consortium ("MLC") supplies the principal source of support for research co inducted under the auspices of MIT's Media Laboratory; and

WHEREAS MIT and the Member share an interest in the advancement of technology and recognize that a research program ranging from fundamental to concentrated or focused research will deliver benefits both to the ML Cand to the Member; and

WI-EREAS the MLC will further the instructional and research objectives of MIT in a manner consistent with its status as a non-profit, tax-exempt, educational institution;

NOW, THEREFORE, the parties hereto agree as follows:

1. THE MEDIA LABORATORY CONSORTIUM ("MLC," or the "Consortium"). The MLC is an interdisciplinary program formed to advance Media Laboratory research initiatives in the emerging areas of virtual societies, developing world technology, physical and mental capabilities augmentation, and the human interface with online technologies and commerce. The MLC is distinctive in the breadth of its mission and the nimbleness and flexibility of its operations. Its object is to take prompt notice and hold of significant technological advances that appear on its radar, and then to deploy the resources, acumen, and organization needed to achieve leadership in those targeted areas and carry them forward.

#### 2. MEMBERSHIP

- 2.1. The MLC is an association of corporate members worldwide.
- 2.2. Each MLC member executes an MLC Agreement materially similar to this Agreement.
- 2.3. The Media Laboratory has established several tiers of MLC membership ("Membership Levels"), for which it has designated different Membership Fees and different benefits and entitlements. The benefits and entitlements designated for each Membership Level are set forth in the document entitled "Benefits of MIT Media Laboratory Members Effective May 1, 2014" (the "Benefits Document") and attached hereto as Attachment A.

The Member has selected the following Membership Level for the Initial Term: CONSORTIUM LAB MEMBER.

- 2.4. Each MLC member designates to MIT a limited number of individuals authorized to act on its behalf:
  - 2.4.1. One billing contact;
  - 2.4.2. One contact to receive intellectual property notices:

- 2.4.3. One contact to receive contract notices;
- 2.4.4. One Member Liaison. The Member Liaison will work directly with Media Lab staff to establish relationships between the Member and research groups with common or aligned interests, and to manage and plan visits and other interactions with the Media Lab.

At the Member's discretion, any designee may serve in multiple capacities. The Member designees are identified in Article 12.

3. MEMBER VISITING PRIVILEGES. Members will have opportunities to collaborate with Media Laboratory researchers or participate in Media Laboratory events. These opportunities may include invitations to one or two major international symposia each year, planned informal "drop-ins" by Members to meet with Media Laboratory researchers, and joint development projects. Such opportunities may include annual member-focused events.

For those Members who are entitled under the Benefits Document to a Company Day, the Member Liaison will work with MLC Co-Chairs and Media Laboratory staff to craft a Company Day that meets the Member's particular interests and needs. In the course of planning the Company Day, the Media Laboratory will work with the Member Liaison to settle upon a mutually agreeable number of Member attendees.

- 4. TERM. The term of this Agreement shall begin on the Effective Date, <u>AUGUST 1. 2015</u>, and shall continue for a period of two years, ending on <u>JULY 31. 2017</u> (the "Initial Term"). Upon written agreement of MIT and the Member, this Agreement may be renewed for additional terms ("Renewal Terms") at the thencurrent and applicable fee rate for the selected Membership Level. The Initial Term, taken together with all subsequent Renewal Terms, will comprise the Term of this Agreement.
- MEMBERSHIP FEES. For each year during the Term of this Agreement, the Member shall pay MIT the Membership Fee specified for that year in the Membership Schedule, in this case, TWO HUNDRED AND FIFTY THOUSAND DOLLARS, or \$250,000 (the "Membership Fee"), for each year of the Initial Term.

MIT may from time to time substitute a new Membership Fees structure that changes the yearly Membership Fees owed for a given Membership Level. Except as agreed above, an increase to the Member's Membership Fee will not take effect unless MIT has given notice of the fee increase prior to the parties' agreement to a Renewal Term.

MIT will apply the Membership Fee to the direct and indirect costs of the Consortium's activities.

A portion of the Consortium's expenses may be allocated for an academic fund, which may be used to pay for travel expenses (undertaken consistently with MIT's travel policies), meals and activities consistent with MIT policies and the Media Laboratory's tradition of encouraging the exchange of ideas among its Members, faculty and students.

#### 6. PAYMENT.

- A. Amount and Timing. Payments, in U.S. dollars excluding taxes or impost of any kind, shall be made to MIT by the Member annually, in advance, following receipt of invoices submitted by MIT, with the first payment made at the time of execution of this Agreement. The second payment will be due by July 31,2016 before the start of second year of the annual membership.
- B. Method and Tax Certification.
  - All payments to MIT under this Agreement shall be (a) made by wire transfer in accordance with the wire instructions set forth on Attachment D. (b) in immediately available funds, and (c) in the full amount owed pursuant to this Agreement and net of (and without deduction for) Taxes (for all purposes of this Agreement, the term "Taxes" shall mean and include all taxes, tariffs and/or imposts of any kind, and all related penalties or interest).
  - For each wire transfer payment made to MIT under 6.B.1. above Sponsor shall furnish to MIT a copy of all documentation of payments of INDIA Taxes submitted on behalf of MIT to INDIA tax authorities within 30 days of submission to INDIA tax authorities.

C. Taxes.

-

- 1. MIT is a nonprofit, tax-exempt educational and research organization in the United States, and generally does not pay any tax on its mission-driven revenues, and does not intend to establish a permanent establishment or to be otherwise taxable in INDIA. In the event that MIT is construed by any tax administrative authority or any judicial or quasi-judicial authority to have established a "permanent establishment" or to have received "royalty income" or otherwise to be taxable or to have to file a tax return in INDIA as a result of MIT's entering into this Agreement or its undertaking any of the activities described in this Agreement, Sponsor shall be responsible for expeditiously grossing up and paying MIT an additional amount equal to the sum of (a) its proportional share of any such tax liability and legal registration fees, including, without limitation, interest and penalties and the cost to prepare and file any tax returns and legal registration documents, and (b) any additional amounts necessary in order for MIT to receive and retain the full amounts to be paid to it under this Agreement. If the United States and INDIA have entered into a treaty to avoid double taxation, MIT will provide the Sponsor with a certification letter in order to reduce or eliminate any treaty-covered taxes.
- 2. If INDIA's taxing authorities or any judicial or quasi-judicial authority impose income taxes on any compensation paid by MIT to any MIT faculty, researcher, student, staff member or other personnel as a consequence of his performing activities under this Agreement, or if any such individual is required to file a tax return in INDIA as a consequence of performing activities under this Agreement, then Sponsor shall expeditiously pay MIT, for the benefit of the individual, an amount equal to the Additional Tax plus the Gross Up Amount. The "Additional Tax" is the difference between (a) the total amount that the affected individual would have been obligated to pay for federal and state income taxes in the relevant tax year in the U.S. and elsewhere if the individual had not performed activities under this Agreement, including, without limitation, interest and penalties and the cost to prepare and file any tax returns and (b) the total amount the affected individual is actually obligated to pay for federal and state income taxes in the relevant tax year in the U.S., INDIA and elsewhere, including, without limitation, interest and penalties and the cost to prepare and file any tax returns. The "Gross Up Amount" is an amount equal to the Additional Tax divided by 1 minus the sum of (i) the U.S. federal income tax rate and (ii) the state income tax rate that would be applied to the individual's base compensation.
- 3. The obligations under this Subsection shall survive the expiration or termination of this Agreement.

#### 7. TERMINATION.

- 7.1. The Member may terminate this Agreement effective August 1, 2016 after completing one (1) year of the Initial Term. This one-time election to terminate early requires Member's written notification to be provided no later than July 31, 2015. If Sponsor does not terminate early in accordance with this paragraph, Member's Initial Term shall remain in full force and effect as stated in paragraph 4.
- 7.2. The Member may terminate this Agreement for convenience at any time during a Renewal Term by providing notice in writing to MIT, provided that it fulfills its payment obligations to MIT as of the date of termination.
- 7.3. MIT may terminate this Agreement upon written notice to the Member if (1) the Member fails to make payment to MIT in accordance with Article 6 above and does not remedy the non-payment within thirty (30) days written notice from MIT; or (2) circumstances beyond MIT's reasonable control preclude continuation of this Agreement.
- 7.4. In the event of early termination by MIT under Section 7.2(2), MIT shall refund the Member 1/12 of the Membership Fee paid by the Member in that year for each full month of prepaid, canceled membership. Upon termination by either Party, Member shall remit payment to MIT of unpaid member fees.

- PUBLICATIONS. MIT and its faculty, fellows, students and staff will be free to publish the results of research performed pursuant to this Agreement.
- 9. INTELLECTUAL PROPERTY. MIT shall grant to the Member the full extent of rights and licenses in Media Laboratory IP, as that term is defined in the Benefits Document, that is specified in the Benefits Document for the applicable Membership Level.
- 10. USE OF NAMES. Neither party shall make any press or media announcement concerning this Agreement, or use the names, logos, insignia or trademarks of the other, or any version, abbreviation or representation of them without the written consent of the other, nor shall the Member use the names of any of MIT's trustees, officers, faculty, students, employees or agents in any advertising, fund-raising, promotional materials or other form of publicity without MIT's written consent. In the case of MIT, said written consent must issue from MIT's Technology Licensing Office.
- 11. USE OF CONFIDENTIAL INFORMATION. Non-public information concerning the results of MIT Media Laboratory research may be provided to the Member during its Period of Participation in confidence for the internal research use of the Member and may not be disclosed to the public without the prior written permission of MIT Media Laboratory. The Member's obligations with respect to such non-public information shall expire three (3) years after the termination of this Agreement. Information that has been made publicly available by MIT Media Laboratory is not subject to the foregoing restriction.

Nothing in this Agreement may be construed to prevent the Member from disclosing such non-public information as required by law or legal process, as long as the Member, if permitted by applicable law, promptly notifies MIT of its obligation to disclose and provides reasonable cooperation to MIT in any efforts to contest or limit the scope of the disclosure.

12. NOTICES, MEMBER DESIGNEES. Any notices to be given under this Agreement shall be in writing and addressed to the parties named in the Fee and Term Schedule. Notices shall be delivered by email or by commercial courier service and shall be deemed to have been given or made as of the date received.

#### MIT CONTRACT NOTICE CONTACT

Title:	Media Lab Contract	
	Administrator	
Office:	Office of Sponsored	
	Programs	
Address:	77 Massachusetts Avenue,	
	Room NE18-901	
City, State,	Cambridge, MA 02139	
Zip:		

Email: ospaward@mit.edu

- 13. BINDING EFFECT, ASSIGNMENT. This Agreement will be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns. Neither party may assign this Agreement or any of its rights or obligations hereunder to a third party, including, without limitation, by merger with a third party, without the prior written consent of the other. Any attempted assignment in violation of this Article will be void.
- 14. GOVERNING LAW. Any dispute, controversy or claim arising out of or relating to this contract, or the breach. termination or invalidity thereof, shall be settled at an initial stage by a good faith conciliation between Parties excluding an external conciliator. The Party initiating conciliation shall send to the other Party a written invitation to conciliate, describing the subject of the dispute, and has to be accepted in writing in ten (10) days since the reception. Both communications shall indicate the conciliators, one by each Party. The conciliation may be oral and shall be conducted in English. Each Party shall bear the costs of its own counsel fees and expenses. In maximum one month since the reception of the written confirmation the parties shall reach a written agreement, otherwise OF state. in writina. its lack.

In case of a lack of agreement between the Parties in the conciliation stage, the Party initiating conciliation shall start an arbitration, developed in accordance with the UNCITRAL Arbitration Rules as at present in force. The arbitration shall be final and binding, excluding the possibility of a subsequent judgment upon the award rendered by the arbitrators by a court having jurisdiction thereof. The arbitration shall be conducted before a panel of three (3) arbitrators. Each Party shall select an arbitrator and the selected arbitrators shall mutually agree upon a third. The arbitration shall be held in a mutually agreeable location or, if the parties cannot agree upon a location within ten (10) days after the arbitrator panel has been constituted, at a location deemed fair to the Parties by the arbitrators. The arbitration shall be conducted in English. Each Party shall bear the costs of its own counsel fees and expenses and half of the costs of the arbitration. This agreement will be governed by the laws of the Commonwealth of Massachusetts and the Federal laws of the United States of America, without regard to any applicable conflict of laws principles.

15. GOVERNING LANGUAGE. This English language version of the Agreement will be the official version of this Agreement.

#### 16. EXPORT CONTROLS.

- 16.1. MIT is subject to United States laws and regulations controlling the export of technical data, computer software, laboratory prototypes and other commodities (including the Arms Export Control Act, as amended, and the Export Administration Act of 1979), and its obligations hereunder are contingent on compliance with applicable U.S. export laws and regulations. The transfer of certain technical data and commodities may require a license from the cognizant agency of the United States Government and/or written assurances by the Member that the Member will not re-export data or commodities to certain foreign countries without prior approval of the cognizant agency deems necessary in connection with this Agreement, MIT cannot guarantee that such licenses will be granted.
- 16.2. The Member will not knowingly disclose to MIT, and will use commercially reasonable efforts to prevent disclosure to MIT of, any information subject to ITAR controls or in the Commerce Control List (EAR Part 774 and Supplements) or 10 CFR Part 810 Restricted Data or Sensitive Nuclear Technology. If the Member intends to disclose export-controlled information to MIT in connection with this Agreement, the Member will not disclose such information to MIT unless and until a plan for transfer, use, dissemination, and control of the information has been approved by MIT's Export Control Officer.
- 17. FORCE MAJEURE. MIT shall not be liable to the Member for any delay or default in performing any of its obligations hereunder, if such failure delay or default is caused conditions beyond its reasonable control, including but not limited to natural disasters, fire, government restrictions, war, terrorism, civil unrest, or insurrection.

- 18 AMENDMENT. MIT may amend material terms of this Agreement (other than terms relating to Membership Fees, which are addressed in Article 5) by giving the Member thirty (30) days' written notice of the arrended terms. If Member does not give written notice of objection to the amendments within the thirty-day notice period, the Member will be deemed to have accepted the terms as amended. If a Member does give written notice of objection, the parties shall use all reasonable efforts to resolve the matter in a mutually acceptable manner consistent with MIT Media Lab policy. If a resolution is not achieved, the Member may exercise its right to withdraw from membership under Article 7 of the Agreement.
- 19. ENTIRE AGREEMENT. Unless otherwise specified, this Agreement and its Attachment (1) represent the entire understanding between the parties with respect to its subject matter and (2) supersedes all contemporaneous and previous statements, representations, agreements, and understandings between the Parties, however expressed, that relate to the subject matter of this Agreement.
- 20. COUNTERPARTS. This Agreement may be executed in two or more counterparts, each of which will be deemed to be an original, and all of which together constitute one and the same instrument.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY	UTTAR PRADES	H TECHICAL UNIVERSITY
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Daia:	Date:	

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# ATTACHMENT C: MEMBERSHIP SCHEDULE: UPTU

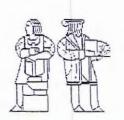
TERM: The current Term of this Agreement runs from AUGUST 1, 2015 to JULY 31, 2017.

MEMBERSHIP LEVEL: The Member is participating at the CONSORTIUM LAB MEMBERSHIP Level.

MEMBERSHIP FEE: The annual Membership Fee payable by the Member during the current Term of this Agreement is \$250,000.

# MEMBER DESIGNEES (please complete):

		FOR BILLING PURPOSES			FOR INTELLECTUAL PROPERTY NOTICES		
Name:	[	1	Name: Title:	1		]	
	]	J	Title:	I		]	
Organization:	]	1	Organizatio	n: [		]	
Address:	Ĩ	]	Address:	]		1	
City, State, Zip:	[	1	City, State, Zip:	[		1	
Phone:	[	]	Phone:	J		]	
Email:	]	1	Email:	- [		]	
			1				
	FOR	OTHER CONTRACT			MEMBER LIAISON		
Name.	[	1	Name. Title:	1			
	1	1	Title:	]		-	
Organization:	1	1	Organization	n: [		1	
Address:	I	]	Address:	I		]	
City, State,	Ĩ	]	City, State, 2	Zip: [		]	
Zip:							
Phone:	[	]	Phone:	1		]	
Email:	{	]	Email:	[			



#### MASSACHUSETTS INSTITUTE OF

#### TECHNOLOGY OFFICE OF MEMBERED

#### PROGRAMS

#### MEDIA LABORATORY SPECIAL INTEREST GROUP MEMBERSHIP AMENDMENT TO MEDIA LABORATORY CONSORTIUM AGREEMENT

In order to recognize and promote work in the growing field of media technology, and in conjunction with its active Consortium-level support of the Media Laboratory Consortium, Uttar Pradesh Technical University (the "Member") and the Massachusetts Institute of Technology ("MIT") on behalf of the MIT Media Laboratory agree to this SPECIAL INTEREST GROUP MEMBERSHIP AMENDMENT to Member's Consortium Agreement ("SIG Amendment").

- STATEMENT OF WORK. MIT agrees to conduct the research projects collectively known as the Living Lab@UPTU Special Interest Group ("SIG") as outlined in the Statement of Work in Attachment A.
- MEMBERSHIP. Current Consortium Members of the MIT Media Lab may join the Living Lab@UPTU SIG by executing two copies of this SIG Amendment with MIT. Except for varying payment terms, all SIG Amendments will be materially similar to all other SIG Amendments.
- PERIOD OF PARTICIPATION. In conjunction with Uttar Pradesh Technical University continuing Membership of the Media Laboratory Consortium, membership in the Living Lab@UPTU SIG will be for the period beginning AUGUST 1, 2015 through JULY 31, 2017.
- 4. MEMBERSHIP FEES. As its share of the SIG expenses, the Member will pay to MIT the sum of \$1,250,000 ("Membership Fees") per year. The Membership Fees will be used for the direct and indirect costs of the SIG. The current membership level of Consortium Lab Member in the Media Laboratory Consortium entitles the Member to the intellectual property rights defined in "Benefits of MIT Media Laboratory Members," effective May 1, 2014.

#### 5. PAYMENT.

A. AMOUNT AND TIMING. Payments in US dollars, net of taxes or impost of any kind, shall be made to MIT by the Member in advance in accordance with the following schedule:

1<sup>st</sup> payment: The amount of U.S. \$1,250,000 is to be paid at the time of signing this agreement and receipt by the Member of relevant invoice.

2nd payment: The amount of U.S. \$1,250,000 is due on or before AUGUST 1, 2016 and receipt by the Member of relevant invoice.

#### B. METHOD AND TAX CERTIFICATION.

- All payments to MIT under this Agreement shall be (a) made by wire transfer in accordance with the wire instructions set forth on Attachment B, (b) in immediately available funds, and (c) in the full amount owed pursuant to this Agreement and net of (and without deduction for) Taxes (for all purposes of this Agreement, the term "Taxes" shall mean and include all taxes, tariffs and/or imposts of any kind, and all related penalties or interest).
- For each wire transfer payment made to MIT under 5.B.1. above, Member shall furnish to MIT a copy of all documentation of payments of UPTU Taxes submitted on behalf of MIT to UP tax authorities within 30 days of submission to such tax authorities.

#### C. TAXES.

- 1. MIT is a nonprofit, tax-exempt educational and research organization in the United States, and generally does not pay any tax on its mission-driven revenues, and does not intend to establish a permanent establishment or to be otherwise taxable in India. In the event that MIT is construed by any tax administrative authority or any judicial or quasi-judicial authority to have established a "permanent establishment" or to have received "royalty income" or otherwise to be taxable or to have to file a tax return in India as a result of MIT's entering into this Agreement or its undertaking any of the activities described in this Agreement, Member shall be responsible for expeditiously grossing up and paying MIT an additional amount equal to the sum of (a) its proportional share of any such tax liability and legal registration fees, including, without limitation, interest and penalties and the cost to prepare and file any tax returns and legal registration documents, and (b) any additional amounts necessary in order for MIT to receive and retain the full amounts to be paid to it under this Agreement. If the United States and India have entered into a treaty to avoid double taxation, MIT will provide the Member with a certification letter in order to reduce or eliminate any treaty-covered taxes.
- 2. If INDIA's taxing authorities or any judicial or quasi-judicial authority impose income taxes on any compensation paid by MIT to any MIT faculty, researcher, student, staff member or other personnel as a consequence of his performing activities under this Agreement, or if any such individual is required to file a tax return in India as a consequence of performing activities under this Agreement, then Member shall expeditiously pay MIT, for the benefit of the individual, an amount equal to the Additional Tax plus the Gross Up Amount. The "Additional Tax" is the difference between (a) the total amount that the affected individual would have been obligated to pay for federal and state income taxes in the relevant tax year in the U.S. and elsewhere if the individual had not performed activities under this Agreement, including, without limitation, interest and penalties and the cost to prepare and file any tax returns and (b) the total amount the affected individual is actually obligated to pay for federal and state income taxes in the relevant tax year in the U.S., India and elsewhere, including, without limitation, interest and penalties and the cost to prepare and file any tax returns. The "Gross Up Amount" is an amount equal to the Additional Tax divided by 1 minus the sum of (i) the U.S. federal income tax rate and (ii) the state income tax rate that would be applied to the individual's base compensation.
- 3. The obligations under this Subsection shall survive the expiration or termination of this Agreement.

6. TERMINATION. The Member's participation in the SIG is contingent upon its consortium membership and is subject to the terms and conditions of the Member's Consortium Agreement, as that agreement may be amended and/or restated from time to time; this SIG agreement shall terminate automatically if the Member is no longer a Consortium-level Member of the MIT Media Lab.

6.1 The Member may terminate its participation in this SIG for convenience effective August 1, 2016 after completing one (1) year of participation. This one-time election to terminate requires Member's written notification to be provided no later than July 31, 2015. If Member does not terminate early in accordance with this paragraph, Sponsor's period of participation shall remain in full force and effect as stated in paragraph 3.

6.2 MIT may terminate the SIG upon written notice to the Member if conditions preclude continuation of the SIG. In such case, uncommitted SIG Membership Fees will be returned to the Member on a pro rata basis with other SIG Members.

IN WITNESS WHEREOF, the parties of the Agreement acknowledge and consent to the terms and conditions expressed herein.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY		UTTAR PRADESH TECHNICAL UNIVERSITY
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Name	Name_	÷
Title	Title	
Date	Date	

# ATTACHMENT B

# INSTRUCTIONS FOR MAKING WIRE TRANSFERS IN USD ONLY TO MIT

Name of bank to which funds are to be wired:	Bank of America, NA
Bank address:	- 100 Federal Street Boston, MA 02110
WIRE PAYMENT ABA Routing Number:	026 009 593
SWIFT CODE:	BOFAUS3N
DDA Account Number:	# 004632424694 (MIT Incoming Wire)
ACH ABA ROUTING Number:	011 000 138
Wire Details:	
Please include Name of MIT Program,	
MIT Principal Investigator,	
MIT account number or MIT invoice number	
to credit:	

Member, please provide as much information as possible to identify the objective of the wire transfer, such as MIT Principal Investigator's name, MIT department, MIT account number, project title or descriptor, to facilitate identification of the incoming wire transfer. If there is limited space, the MIT Principal Investigator and Research Program (Title) are probably the minimum information needed to identify the objective for the wire transfer.

Member, please notify <u>wire-transfers@mit.edu</u> or <u>Patricia Crosby</u> in MIT Accounts Receivable at 1.617.253.2751, pcrosby@mit.edu, that you are making a wire transfer. Provide your company name, the name of the bank or party wiring the money, the amount of the wire, the MIT Principal Investigator, Research Program (Title) and/or account number to which this money should be transferred, and the date when the wire is expected to be made. Please include a contact at the Principal Investigator's MIT department in case of questions and the date when the wire is expected to be made.



Attachment 1

Living Lab@UPTU

Statement of Work May 31, 2015

Summary

MIT researchers will investigate the application of urban innovation in the form of living labs in the state of Uttar Pradesh (UP), with an emphasis on urban simulation for decision-making and community engagement, urban mobility, urban agriculture using aeroponic technology and e-fabric for shading device.

# Scope of Work

The MIT Media Lab agrees to collaborate with Uttar Pradesh Technical University (UPTU) to evaluate the deployment of urban innovation in the context of the State of UP as a living lab. Research activities will focus on the following:

Living Lab: The MIT Media Lab proposes to collaborate with an incubation facility in the form of "Living Lab" established by the Government of Uttar Pradesh through UPTU for creating, testing, analyzing, and deploying innovation within India. Rapid urbanization is a key economic driver especially in the developing world; however, the problems of congestion, pollution, social inequity, and climate change leave countries with very low quality of life for most citizens. This is the opportunity for innovation and entrepreneurship to make a difference. The MIT Media Lab is focused on creating technological innovations within the key areas of mobility, energy, health, food, housing, and big data analytics.

- This State-of-Art facility will encourage entrepreneurship among the young scientists and researchers
  of the institute and other parts of the state and help them to innovate around the needs and
  challenges of the state. These Living Labs will engage governments, local and international
  companies, knowledge partners and young people (university students, graduates, etc.) to co-create
  urban solutions.
- An incubation facility will be developed by the UP Government in following key areas:
  - Computer Science, Information Technology, Electronics & Communication, Electrical Engineering at I.E.T. Lucknow
  - : Civil and Chemical Engineering at H.B.T.I. Kanpur
  - : Textile Engineering at U.P.T.T.I Kanpur
  - c Mechanical Engineering at M.M.M. University. Gorakhpur

- The research topics for first two years in above centers will be focused on urban innovations and are as following:
  - Urban Analytics and Modeling: Big data analytics with focus on data driven approach to designing urban spaces and systems at I.E.T., Lucknow
  - Mobility-on-demand: New mobility solutions for transportation, multi-model mobility, shared used vehicle systems at M.M.M. University, Gorakhpur
  - o Urban Food-on-demand: Urban food systems addressing food security and water scarcity problem by using aeroponic technology at H.B.T.I., Kanpur
  - Urban Smart Textile: Innovative shading systems by enabling digital components into the fabric at U.P.T.T.I, Kanpur
- Even though focused on specific key areas, these Innovation Labs will be interdisciplinary research laboratories devoted to projects at the convergence of technology, multimedia and design and will be interlinked with each other to collaborate in various research projects.
- Develop Living-Lab experiments in collaboration with UPTU and local or multi-national corporations to deploy urban innovations to be tested in a real-world environment. The activities will include:
  - o Running simulations
  - o Deploying prototype testing in the field.
  - o Analysis of results
  - o Iterative design improvements

Design Workshops: Develop a series of design workshops to be held in the State of UP and MIT that will explore the creation of a suite of urban innovations specific to India. One workshop per year will be integrated into a semester-long Media Lab academic course. This course will bring approximately 15 students to the State of UP for a one-week on-site "Charrette" – a type of intensive brainstorming and design session with key State of UP officials as well as local university students.

A second workshop during each year will be held at MIT where the Indian delegation of researchers, students, faculty, or executives will come to MIT, Cambridge, MA, for a one-week development workshop with MIT students, staff, and faculty. The resulting research from the workshops will create a technological solution space, out of which UPTU and MIT can select the most promising concepts for further pursuit either commercially (through industrial partners) or for additional research and development. An online and printed publication of the workshop results will also be produced.

Development Ventures: Establish a version of an MIT Media course called "Development Ventures" to enable students to identify impactful early stage urban innovations and to create development roadmaps, business models, and market readiness plans. The India Development Ventures course can interface local R&D efforts, government backed industrialization efforts, and investment groups at MIT and in India.

# Project Outcomes and Deliverables

Develop an urban innovation and entrepreneurial ecosystem for young people. These innovation & incubation labs will develop new technologies supported with the cutting edge research addressing the needs of a rapidly urbanizing society and will be expanded or multiplied overtime in different areas/ fields based on the outcome of this two years research project.

The two-year collaboration would result in the following tangible outcomes and deliverables

- Develop design guidelines for UPTU to set-up innovation & incubation centers in the form of "Urban Innovation Living Lab". These centers will be identical in nature and will be equipped with the facilities for collaboration, fabrication and prototyping workshops (Fab Lab), and a technological showcase area. These labs will have following activities:
  - Research & prototyping center

- · Showcase for urban innovations.
- Living Laboratory for pilot experiments
- Business incubator space for urban ventures
- Fab Lab Fabrication Lab enabling hands-on prototyping
- Even though these innovation & incubation centers are focused on specific key areas, these labs will be interdisciplinary research laboratories devoted to projects in the field of urban innovation for the first two years and will be interlinked with each other to collaborate in various research projects. MIT team will carry out the process of innovation with the staff, researchers and students from UPTU during next two years by conducting research, building prototype demonstrations, deploying Living Lab experiments, engaging with industrial partners to facilitate commercialization, providing datadriven decision support, showcasing technology, and creating design workshops.
  - Develop operational frameworks for the center, which will include innovative models for colleborative academic research, industry-funded research, Living Laboratory experiments for new technology.
- Develop tools and systems such as CityScope for the incubation facility to analyze real time data for making informed decision and simulate interventions in the field of urban mobility systems, urban food production systems, and smart fabric in live/work spaces.
- Develop Living-Lab experiments for deploying urban innovations to be tested in a real-world environment and for analyzing the results to carry out design improvement.
- Develop a program in the lines of MIT Media Lab course; Development Ventures to enable students to identify impactful early stage urban innovations and to create development roadmaps, business models, and market readiness plans for supporting the start-ups and spin-offs.

# Outline Research Schedule

The following outlines a two-year research schedule. It is understood that UPTU will assign at least two faculty and/or staff researchers for each of the labs, in addition to the MIT personnel funded under this agreement, to work with MIT on this project. The additional personnel will likely accelerate the process. The schedule below is preliminary, and may be updated periodically as mutually agreed.

#### MONTHS 1-6

Activities will include the development of:

#### Develop framework and guidelines

- Preliminary work of the framework of the incubation centers which will include innovative models for collaborative academic research, industry-funded research, Living Laboratory experiments for new technology.
- Design guidelines for UPTU to establish centers in next one year, which will be equipped with the facilities for collaboration, fabrication and prototyping workshops (Fab Lab), and a technological showcase area. These facilities will be similar in nature.
- Invite high-level team from UP State to participate in Members Week events at MIT and discuss the roadmap for next two years.

CitySCOPE, an urban analytics platform

- The design and specification of a CitySCOPE platform using HD projectors, table for a 3D model, and structure to integrate the hardware at MIT facility.
- After the testing and refinement of the CitySCOPE hardware platform, MIT will provide UPTU with specifications for the duplication of the system at their I.E.T., Lucknow facility. The cost of equipment, labor for installation, and maintenance for the platform in UPTU is the responsibility of UPTU.
- Preliminary work on 3D mapping and scanning technology to update the computational models, responding in real time to changes in the physical model.

#### Design "Blue Sky thinking" workshop

- Planning for semester long design workshop at MIT (develop focus areas).
- . Conduct semester long design workshop at MIT including one-week site visit to the State of U.P.
- Team of researchers and students from MIT will join and interact with the team of researchers and students from UP State along with core teams to understand the tool and develop concepts, solutions around the challenges. This one week workshop will take place at UPTU, I.E.T. campus, Eucknow with one day session in between at each of the four centers.
- Invite experts, industries and knowledge partners for the daylong session at the end of the workshop to showcase these models, simulations and have high-level discussions.

### MONTHS 6-12

In addition to continuing the work of the first six months, activities will include:

- Preliminary work on following key areas as a test case for CitySCOPE.
  - Big data analytics a prototypical mixed-use community
  - Mobility-on-demand an agent-based simulation of pedestrian and private automobile movement in the community
  - o Urban Food investigation of modeling and visualization of food networks in urban environment
  - o Smart Textile investigate potential of integrating textile and electronic elements for shading purpose
- Identify possible interventions (technological and/or policy) and urban improvements based on the above analysis.
- Develop spectrum of ideas seeking solutions in all the fields i.e. Food, Mobility, Big data, Smart Textile and deploy concepts to develop range of possible experiments to be carried out next year in this Living-Lab.

#### Design Workshop

- Hold brainstorming one-week workshop at MIT with the delegation from UPTU and interaction among various stakeholders in each of these areas to explore a range of scenarios from "Moon-Shot" to "What can be done immediately."
- Create publication of workshop results and seek development opportunities.
- Pre-planning Development Ventures Workshop (in year 2)

#### MONTHS 13-18

In addition to continuing the work of the first year, activities will include:

#### Living Lab Experiments

- Develop a set of experiments that can test technological solutions in following research areas at each of Living Lab:
  - o I.E.T., Lucknow Urban Data Analytics
    - Visualization of land use, building use, population density, energy flows, water flows, wind flows, solar access, and shadows.
  - o M.M.M.T.U, Gorakhpur- Mobility-on-Demand
    - Testing and evaluation of the agent-based simulation of pedestrian, private automobile, and mass transit systems.
  - o H.B.T.I., Kanpur- Urban Food
    - Testing and evaluation of vertical farming through aeroponic technology to address the food security and water scarcity problems
  - o U.P.T.T.I., Kanpur Smart Fabric
    - Testing and evaluation of smart fabric enabled with digital components to achieve innovating shading devices
- Simulate these interventions into the CitySCOPE model to understand the potential output.
- Out of the above experiments, the team will build one small-scale prototypes for each of these research areas in different labs to be deployed for the pilot testing in a Living laboratory environment.

#### **Development Ventures**

- Planning for semester long design workshop (develop focus areas).
- Conduct Development Ventures design workshop at MIT including one-week site visit to State of U.P.
- Team of researchers and students from MIT will join and interact with the team of researchers and students from UPTU along with core teams to analyze the Living-Lab experiments.
- Invite experts, industries and knowledge partners for the daylong session at the end of the workshop to showcase these experiments, prototypes and explore the opportunity for commercial scalability.

#### MONTHS 19-24

In addition to continuing the work of the first 18 months, activities will include:

#### **Development Ventures**

- Develop plans for scaling solutions based on the funding by collaborating, partnering with other stakeholders.
- · Create publication of second workshop results and seek development opportunities.
- Pre-planning for any future collaboration.
- Identify number of Urban Solutions that can be immediately implemented as products, systems or policies.
- Identify promising urban solutions requiring further research and development and seek funding opportunities.

# **Collaboration Benefits**

- Non-exclusive, Royal-free IP access The Government will be given access to all intellectual property created by all the research groups within the Media Laboratory during the window of membership.
- Knowledge Transfer The transfer of creative ideas for the use of a single new technology, or the convergence of several technologies.
- Member Meetings The Government will be invited to the Media Lab's biannual weeklong meeting for all sponsors. Members use the Media Lab to build connections and specifically to collaborate with downstream partners, which can enable them to come to market with a more complete product. Plus, connections with Media Lab start-ups provide a rich source of ongoing technology and product development.
- Access to Publications and data The Government will be given privileged access to experiment results as well as any publications produced based on the sponsored research.
- Design Workshops MIT to bring delegation of researchers for a one-week workshop in the India that will be part of a semester long design exercise held at MIT. This workshop will explore a range of solutions for the problems identified. A second workshop will be held at MIT where the Indian delegation of researchers, staff, faculty, or executives will come to MIT, Cambridge, MA, for a oneweek development workshop with MIT students, staff, and faculty.

#### Collaboration

Given the tight time schedule for completion of the project it will be vital to a working structure that includes constant communication with direct linkages to key decision makers and built a project planning structure that enables flexibility through parallel work streams. It will also be crucial to build a MIT-UPTU team that works closely together. A team of researchers headed by Project Manager will focus on the development of advanced concepts and technologies to be incorporated into the project and provide support to the UPTU team. Some of the team members will travel back and forth to India to implement the project while rest of the team members will travel during a weeklong design workshop. This team will include researchers, post-doc and graduate students. The team structure will be as following:

#### MIT Project Team

Dedicated Personnel - The Government will have the following personnel devoted to the project from MIT including:

- <u>Project Faculty Leader</u> Project faculty supervisor and principle investigator (PI) for the project who will be based at MIT and will oversee entire MIT project.
- <u>Project Coordinator</u> Project coordination between MIT project team and local teams of incubation labs in institutes. He will be travelling back and forth and will facilitate communication between MIT and India based teams. The project coordinator is also responsible for interacting with state government and other partners.
- <u>Project Manager</u> Team Leader of MIT Media Lab Research team will be the overall project manager in charge of overseeing project management and coordination of MIT based team (on-campus).
- <u>Project Engineers/ Designers (3)</u> Three professional engineers and designers will be stationed at MIT out of which some of them will be travelling back and forth to India to work with UPTU on the development of CityScope, analytic tool for the year one and innovation around focused research



areas in year two. They will provide leadership in developing and deploying the new technology key research areas mentioned earlier.

Post Docs or Graduate students (3) and UROPS (4) - MIT graduate students and post-docs will be
responsible for conducting research and design of key project components. Students will apply their
expertise in design, engineering, business management, material science, etc. to the long-term goals
of the project. Students in the Media Arts and Sciences (MAS) program, are preferred, however,
outside RAs from other MIT departments are permitted on a case-by-case basis.

# Annual Budget

An annual budget of \$1,250,000 (in addition to the membership fee) includes the following:

- . Three full-time research staff or project engineers
- Three post-doctoral researchers or graduate students
- Four undergraduate researchers (UROPS)
- One full-time project manager
- · One full-time project coordinator
- \* 20% principal investigator time
- · 50% administrative assistant time
- Prototyping
- 3D scanning consulting services
- · Travel and accommodation expenses related to research and workshop activities

Note: Budget for Urban Innovation Living Lab facility (including design and furnishing) will be the responsibly of UPTU (see attachment 2).

- The Media Lab reserves the right to adjust budget assignment in the best interest of the project.
  - Note: Following information, facilities are expected from UPTU in addition to the membership:
    - Provide access to all sorts of data from the various fields for the analysis of the model. Data sets should include Geographic Information Systems (GIS). Smart phones (from a Telecom), financial transactions (credit card), census, origin-destination (O-D), etc.
    - Provide any research or information including the master plans for the analysis of the model.
    - Provide space for observatory and lab to build the physical model and hold workshops and business meets.
    - Identify the individuals and organizations from academia, government, and industry for interaction with the MIT Project team.



Attachment 2

Living Lab@UPTU

"Urban Innovation Living Lab"

May 31, 2015

An incubation facility will be developed in approx. 5000 square foot area. This State-of-Art facility will have following facilities:

- Training & Demonstration area
- Video & Audio conferencing
- Fabrication Laboratory/workshop
- Work Space
- Interaction area

The incubation facility can be created in the existing facility of UPTU or affiliated organization. The faculty and students will be selected to participate in the project. The budget for designing and furnishing of the facility would be as per the standard practice of UPTU. The budget for the Fabrication Lab is based on the MIT's Center for Bits and Atoms Fab Lab program for research lab of incubator. The tentative budget for setting up one incubation center is as following:

1.	Designing and furnishing approx. 5000 sft area@ \$40 per sft	\$ 200,000
2.	Fabrication Laboratory facilities incl.	\$ 200,000
	Equipments	
	Machine Tools	
	Documentation tools	
	Installing & training	
3.	2 years running.cost of the facility	\$ 200,000
	Annual running cost of the facility @ \$100,000 per year incl.	
	Manpower (Manager/in-charge, Lab Scientist, Lab Assistants)	
	Electronic & Misc consumables	
	Fabrication Materials	



4.	2 years workshop expenses	\$ 200,000
	Annual workshop expenses @\$100,000 per year	
	UP State delegation's travel & stay for attending MIT workshop (one week workshop per year)	
	Conducting workshop in UP State (one week workshop per year)	
	Approx. Budget for one incubation facility	\$ 800,000

Note: MIT will provide the specification for setting up the incubation facility; however the expenditure will be done by UPTU as per its standard practice.

# Regulations for Implementation of Autonomy in Institutions affiliated to Gautam Budha Technical University, Lucknow

University has the provision of granting the academic autonomy to its affiliated Institutions ba sed on such sanction from University Grants Commission, New Delhi (UGC). The grant of au tonomy empowers Institutions to plan and carryout all academic processes on their own for do ing better and have more credibility. Autonomous Institutions need to create their own ac ademic systems that are robust enough so as to avoid any misuse of freedom granted to Institution. These regulations are framed for smooth implementation of autonomy and based on the UGC's general policy regarding Autonomous colleges, Technical University regulations, provisions of State University Act and practices/feed back from existing autonomous colleges. Th ese include the modification in existing Board of Governors of respective autonomous Institution, creation of different functionaries for implementation of autonomy, their duties and responsibilities and other activities needed for self regulation of autonomous functioning of such Institutions. These regulations will be subject to change based on policy framework regarding au tonomous colleges by the UGC and as per requirements of the University.

#### 1. OBJECTIVES OF AUTONOMY:

An autonomous Institute/College shall be governed by the regulations of University for implementation of autonomy in them and shall have the freedom to

a) Determine and prescribe its own course(s) of study and syllabilities per University regulations for autonomy;

b) Evolve methods of teaching, evaluation and conduct examinations as in its opinion are conducive to maintenance of the standard of education ;

c) To appoint persons qualified to be appointed as examiner;

d) Evolve new course(s) / subject(s) as per the requirements of the region, society and / or industry as per University regulations for autonomy; and

e) To furnish such reports, returns and other information as the Executive Council may desire from time to time to enable it to judge the functioning of autonomous college.

The autonomy shall be a means to achieve higher standards and greater creativity in future. An autonomous college shall be fully accountable for the content and quality of education that it imparts and shall be responsible for evaluation of the students for awards of Degree, Diploma and Certificates which will be accepted by the parent University. University shall continue to exercise general supervision over an autonomous Institute/College and to confer degrees on the students of the college passing any examination qualifying for any degree of the University. Executive Council of University may at any time get an autonomous college inspected by a Board of Inspectors, and after perusing the report of such inspection , it is of the opinion that the Institute/College has failed to maintain the requisite standard, or that in the interest of education, it is necessary to withdraw the privileges of autonomy, the Executive Council may with the prior approval of Chancellor, withdraw such privileges and thereupon Institute/College shall revert back to the position of an affiliated college.

In view of grant of status of Autonomous college the Institute shall have to ensure the participation of certain members in Board of Governors or highest statutory authority of Institute as advised below and formation of following new authorities to ensure proper management of ace demic and other related general administrative affairs.

- Academic Council
- Board of Studies
- Examination Committee
- Academic Audit Committee

2. BOARD OF GOVERNORS or HIGHEST STATUTORY AUTHORITY: Affiliated Institutions need to include a nominee from UGC, New Delhi, one nominee of University to be nominated by Vice Chancellor and two faculty members of the Institute in order of seniority on rotation basis for a period of two years in their respective Board of Governors or other highest statutory authority of the Institution after grant of academic autonomy.

# 3. A CADEMIC COUNCIL :

The Academic Council will be solely responsible for all academic matters, such as, framing of academic policy, approval of courses, regulations and syllabi, etc. The Council will involve faculty at all levels and also experts from outside, including representatives of the university and the government. The composition and functions of the Academic Council are given below;

#### Composition:

SI. No.		
1.	Director/Principal	Chairman
2.	All Heads of Department	Members
3.	Three teachers of the Institute representing different cadres of teaching staff by rotation on the basis of seniority	Members
4.	Not less than four experts from outside the college representing such areas as Industry, Commerce, Law, Education, Medicine, Engineering etc. to be nominated by Governing Body (Board of Governors in this case)	Members
5.	Three nominees of the University	Members
6.	Dean, Academic Affairs of the Institute*	Member Secretary

\*Dean, Academic Affairs of the Institute: Every Institute/College shall have a senior faculty member as Dean, Academic Affairs for looking into all affairs related to academic activities of the Institute. Dean, Academic Affairs of Institute/College shall make necessary preparations for the smooth functioning of academic autonomy and make all other arrangements thereof and be responsible for the due execution of all processes connected therewith under superintendence of

# Term of Members:

The term of the nominated members shall be two years.

# Meetings:

The Director/Principal of Institute/College shall convene a meeting of the Academic Council at least twice in a year.

# Functions:

Without prejudice to the generality of functions mentioned, the Academic Council will have powers to :

- a) Scrutinize and approve the proposals with or without modification of the Board of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedure relevant thereto etc., provided that where the Academic Council differs on any proposal, it will have the right to return the matter for reconsideration to the Board of Studies concerned or reject it, after giving reasons to do so.
- b) Scrutinize and approve the proposals with or without modification of the Examination Committee with regard to conduct of examination, evaluation and result declaration and other connected issues etc. provided that where Academic Council differs on any proposal, it will have the right to return the matter for reconsideration to the Examination Committee or reject it, after giving reasons to do so.
- c) Frame detailed modalities for mechanism of evaluation and examination system. University Ordinances for different programmes needs to be adapted and adhered as such. No deviation except those required due to change in nomenclature of executives in University vis-à-vis Institute will be carried out, but no change in laid down provisions of University Ordinances is permissible.
- d) Review of the mechanism of evaluation and examination system based on report of Academic Audit Committee.
- e) Make regulations for academic activities (teaching learning process), sports, extra-curricular activities, and proper maintenance and functioning of the playgrounds and hostels as per the requirement.
- f) Recommend to the 'Board of Governors' proposals for institution of new programmes of study.
- g) Recommend to the 'Board of Governors' for institution of scholarships, fellowships, prizes and medals, and to frame regulations for the award of the same.
- h) Advise the 'Board of Governors' on suggestion(s) pertaining to academic affairs made by it.
- i) Perform such other functions as may be assigned by the 'Board of Governors' or highest statutory authority of Institute/College.
- j) Perform such other functions as may be assigned by the University.

# 4. BOARD OF STUDIES :

The Board of Studies is the basic constituent of the academic system of an autonomous college. Its functions will include framing the syllabi for various courses, reviewing and updating syllabi from time to time, introducing new courses of study, determining details of continuous assessment.

recommending panels of examiners under the semester system, etc. The composition and furnctions of the Board of Studies are given below;

#### composition :

SI_ No.		
1.	Head of Department concerned	Chairman
2.	Entire faculty of the Department	Members
3.	Two experts in the subject from outside the Institute to be nominated by Academic Council	Members
4-	One expert to be nominated by the Vice Chancellor	Member
5.	One representative from industry / corporate sector / allied area relating to placement, to be nominated by the Director/Principal of Institute/College	Member
6.	One meritorious alumnus to be nominated by the Director/Principal of Institute/College	Member
7.	Two student representatives from respective programme, from final year / pre-final year each .	Members
8.	<ul> <li>The Chairman, Board of Studies , may with the approval of the Director of the Institute, co-opt</li> <li>a) Experts from outside the Institute whenever special courses of studies are to be formulated</li> <li>b) Other members of teaching staff of the same faculty</li> </ul>	

#### Term :

The term of the nominated members shall be of two years.

# Meeting:

The Director/Principal of the Institute shall draw the schedule for meeting of the Board of Studies for different departments. The meeting may be scheduled as and when necessary, but at least twice a year.

# Functions :

The Board of Studies of a department in the Institute shall ;

a) Prepare syllability for various courses keeping in view the objectives of the college, interest of the stake holders and national requirement on the basis of model curriculum provided by University. The scheme of examination & evaluation for different courses, course structure and compulsory courses as prescribed by University will be adapted as such however, the elective subjects may be decided by the Board of Studies as per Institute's speciality and regional/national requirements for consideration and approval of Academic Council. In case the Board of Studies wishes to make change in compulsory subjects then the approval of Board of Studies of University will be essential before approval from the Institute's Academic Council. Change in scheme of examination & evaluation and course structure is

b) Suggest methodologies for innovative teaching and evaluation techniques;

- c) Suggest panel of names to the Examination Committee / Academic Council for appointment of internal / External Examiners, Moderators, Question Paper setters. These persons should possess the minimum qualifications as prescribed by AICTE for post of Assistant Professor with three years teaching experience; and
- d) Coordinate research, teaching, extension and other academic activities in the Department / Institute.

#### 5. EXAMINATION SYSTEM

In order to be fair to all there can be various alternatives to the examination system. Student's performance may be evaluated on the basis of internal evaluation, external evaluation or combination of both internally and externally. System of examination in Institute/College will be commensurate to University Examination System. Institute will take approval of the detailed modalities of examination/evaluation system from the University before starting functioning as autonomous college. Remuneration for examination work shall be as that paid by the University.

The Autonomous Institute shall conduct the examinations at specified period(s) as it may determine and notify, The examinations and evaluation system shall be as may be determined by the Academic Council. The examination and evaluation shall be carried out in such a manner as to enhance the faith and the credibility in the minds of the students and the society by being fair and rational.

### Examination Committee:

For smooth and fair conduct of examination there will be Examination Committee whose composition shall be as follows ;

#### Composition :

SI. No.		
1.	Director	Chairman
2.	Three teachers from three different cadres to be nominated by rotation according to seniority	Members
3.	One evaluation expert to be nominated by the Director/Principal of Institute/College	Member
4.	Superintendent of Examination	Member
5.	Controller of Examination of the University or his nominee not below the rank of Professor	Member
6.	Dean Academic Affairs of the Institute	Member
7.	*Controller of Examination of Institute/College to be - nominated by Director/Principal of the Institute/College	Member Secretary

\*Controller of Examination of Institute: Every Institute/College shall have a senior faculty member as Controller of Examination for looking into all affairs related to examination. Controller of Examination of Institute/College shall make necessary preparations for the examinations, declare result and make all other arrangements thereof and be responsible for the due execution of all processes connected therewith subject to the superintendence of the Examination

sperintendent of Examination: Every Institute/College shall have a senior faculty member not bebw the rank of Associate Professor as Superintendent of Examination. Conduction of examination will be the responsibility of the Centre Superintendent appointed by the D i rector/Principal of Institute/College.

#### Tem:

The term of nominated members will be of two years.

# powers and Duties of the Examination Committee :

- 1. The Examination Committee shall,
  - a. Ensure proper organization of Examinations and tests including moderation, tabulation and declaration of the results.
  - b. Propose the panel of External and Internal Examiners, Moderators, Paper Setters from amongst the persons included in the panels prepared by the respective subject Board of Studies for approval of Academic Council of Institute and the approved panels will be sent to University.
  - c. Undertake, exercise and experiment in the examination reforms.
  - d. Laydown detailed procedure for question paper setting / moderation of question papers so as to ensure that the question paper is fairly covering whole syllabus and requisite standard is maintained.
  - e. Review the results and all Question Papers/class test papers for each semester examination for which will Controller of Examination will present all relevant papers/documents before the committee.
- The Committee shall adapt/ approve the time schedule of examinations and dates of declaration of their results at the beginning of the session / term and Controller of Examination shall notify the same.
- The evaluation of answer books for all examination shall be done through Central Evaluation System for which the detailed procedure shall be prescribed by the Examination Committee.
- 4. For ensuring fair evaluation Institute / College may adapt either of two methods
  - a. All evaluated answer books will be shown to the students within a stipulated time after conduct of examination and signatures of student be taken on answer book. The date of showing evaluated answer books need to be declared in Question Paper itself. A record of marks obtained by students need to be preserved in records of Controller of Examination Office before the answer books are taken for showing them to the students. In case of grievance of the student with evaluation the same shall be redressed by the subject Examiner/Head of Department/Director or Principal of Institute/College in this hierarchy. After the answer books are shown the subject Examiner will return the answer books for record along with the marks finally obtained by students to the Tabulators/Controller of Examination. There will be no provision of scrutiny in such case.
  - b. The answer books of an examination shall be masked and then coded. The coded answer books shall then be handed over to the examiners for evaluation. After evaluation, all answer books shall be decoded and demasked and the tabulation sheet / result sheet be prepared by the Tabulators/Controller of Examination. In such case there will be provision for scrutiny for which there will be a standing committee comprising of subject Examiner as prescribed by the Examination.

Committee and follow the procedure for receiving and processing scrutiny applications.

- In order to investigate and take disciplinary action for malpractices and lapses on the part of candidates, paper setters, examiners, tabulators, moderators, teachers or any other persons connected with the conduct of examinations, the committee shall constitute a Sub-Committee consisting of three members, of whom one shall be Chairman.
- 6. The recommendations of the Sub-Committee shall be placed before the Examination Committee, which shall take the disciplinary action in the matter, as it deems fit.
- 7. The Committee shall arrange for strict vigilance during the conduct of the examination so as to avoid use of unfair means by the students, teachers, invigilators, supervisors etc.
- 3. Two third members shall constitute a quorum. If the meeting is adjourned for want of quorum, then no quorum shall be required for such meeting.
- The Committee shall meet at least twice during academic year and such other times as may be required.
- 10. The Committee shall perform such other duties and responsibilities which are assigned to it from time to time by the Academic Council.

# 7. ACADEMIC AUDIT COMMITTEE

An autonomous Institute/College shall have an Academic Audit Committee for periodic review of functioning of academic autonomy granted by University. The Academic Audit Committee shall be constituted with following composition.

SI. No.		4
1.	A senior academician of level of Professor from Technical Education from outside Institute/College nominated by Vice Chancellor	Chairman
2.	Five Teachers from Engineering/Technology/Pharmacy/Management/Architecture/Hot el Management etc. not below the rank of Associate Professor from outside Institute/College such that each professional stream of the respective Institute/College is covered , to be nominated by Vice Chancellor	Members
3.	Dean, Academic Affairs of the Institute	Member Secretary

Term : The term of nominated members will be of two years.

Powers and Duties of the Academic Audit Committee : Academic Audit Committee shall be responsible for ensuring the compliance of laid down procedures for maintaining standard of education and preventing any misuse of academic autonomy.

- 1. The Academic Audit Committee shall review some or all question papers in light of subject coverage and standard of questions asked in each semester examination.
- 2. It will review the methodology / award of sessional marks by the subject teachers.
- It will look into the student feedback mechanism in Institute/College and action taken on the basis of feedback for improvement in teaching learning process.
- It may look into the conduction of classroom / laboratory teaching, coverage of syllabus, and also the conduction of theory / laboratory/seminar/project examinations.
- 5. Academic Audit Committee will give its feedback to Examination Committee/Academic

Feedback of Academic Audit Committee will also be communicated to University for 6. information and the Institute's Academic Council shall submit the details of the action taken based on report of Academic Audit Committee.

# 7. Awards/Medals

Autonomous colleges are free to institute medals for meritorious students. The value and other terms of reference may be decided with the approval of appropriate bodies in the college.

# 8. I ssue of Marksheets/Degrees Through Parent University

The parent University will issue marksheets and award degrees to the students evaluated and re commended by autonomous Institute/College. The marksheets and degree certificates will be in a common format devised by the University. The name of the college will be mentioned in the marksheets and degree certificate. However, the autonomous Institute/College will issue transcripts and provisional certificate on the format as approved by the University.

# 9. Others

- Organisation of special need-based short-term courses under the college's department of а. continuing education may be an important activity of an autonomous college. Such courses ought to benefit the students of the college besides outsiders who may enroll for them.
- The time spent by teachers on projects and extension work shall be counted for reckoning Ь. their workload as prescribed by the AICTE.
- An autonomous college should prepare a calendar for meetings of various bodies to ensure C. that the implementation of the recommendations made by them is not unduly delayed for reasons of non-convening of such meetings.
- A wide variety of courses may be evolved in modules so that students may opt for them d. according to their convenience.
- All autonomous Institute/College should make provision for formative continuous assessment e. of students work during each semester.
- Teacher evaluation in autonomous colleges may include periodical self-evaluation, f. institutional assessment of teacher performance, student feedback, research appraisal and other suitable forms of teacher appraisal.
- Autonomous colleges in a given region may form a consortium for mutual g. cooperation/collaboration in chosen areas such as management skills, national services, services projects, inter-collegiate/intra-collegiate sharing of expertise and human resources for teaching programmes.
- All autonomous colleges should undergo NBA assessment. h.

(C.L. Khetropel) (K.N. Singh)

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