



महाराष्ट्र MAHARASHTRA

2019

AS 840192



जिल्हा कोषागार कार्यालय, ठाणे
26 JUL 2019
मुद्रांक प्रमुख लिपीक / लिपीक
26-7-2019

अनुक्रमांक 66682 दिनांक

8 AUG 2019

दस्तावेजाचा प्रकार -

दस्तावेजाची कोटेशन क्रमांक ?

मिळवणीचे दस्तऐवज क्रमांक -

मुद्रांक शिक्का घेण्याच्या दिनांक -

ह्याचे अंदाजाचा स्थाने नोंद, पत्ता व रक्कम -

दस्तावेजाचा मूल्यमापन -

दस्तावेजाचा शुल्क रक्कम - 100/500

मुद्रांक शिक्का घेण्याची जगती - (नितिन रा. भांडारेकर)

मुद्रांक शिक्का घेण्याची ठिकाण/पत्ता - गंगा झोरोक्स/टायपिंग सेंटर

दस्तावेजाचा ठिकाण/पत्ता - कलेक्टर ऑफीस जवळ, ठाणे (प.)-401

दस्तावेजाचा मुद्रांक - 9209090

दस्तावेजाचा मूल्यमापन -

मुद्रांक शिक्का घेण्याच्या दिनांक व स्थानाचा ठिकाण व रक्कम नोंद घ्यावी.



Shankar

Memorandum of Understanding

Between

MAHARASHTRA STATE ROAD TRANSPORT CORPORATION,
GOVERNMENT OF MAHARASHTRA

and

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY



(Signature)

Vice-Chairman & Managing Director,
Maharashtra State Road Transport Corporation

This Memorandum of Understanding (MoU) is made and entered into on _____, 2019

By and between

Maharashtra State Road Transport Corporation (MSRTC), Government of Maharashtra, represented through Vice Chairman and Managing Director, having its registered office at **MSRTC Central Office, Dr Anandrao Nair Marg, Dalal Estate, Mumbai Central, Mumbai, Maharashtra 400008** (hereinafter called "MSRTC" which expression shall include its successors and permitted assignees).

And

Indian Institute of Technology Bombay, located at Powai, Mumbai, 400076, an Institute of national importance established by an Act of Parliament of India (hereinafter called IIT Bombay, which expression shall include its successors and permitted assignees).

Whereas

1. MSRTC is responsible for public bus transportation in the State of Maharashtra
2. IIT Bombay intends to develop integrated solutions that benefit the society through research and development. Core areas of study will be Bus Transportation, Geographical Information Systems and Census

For the said purpose, all the parties intend to enter into this Memorandum of Understanding (MoU) subject to the terms and conditions hereinafter contained.

Objectives of the MoU

Parties will collaborate to:

1. Carry out detailed studies, documentation and research on regional transportation and services and the operations of MSRTC in various districts and talukas of Maharashtra - such as Sinnar, Ratnagiri, Malvan and Shahapur for the purpose of improvement in efficiency and social welfare.
2. Analyse operational and planning data such as Form 4, ETIMs data, crew duty schedule and other operational data sets in the above mentioned talukas, districts, divisional and central offices, with the purpose of improving the processes of MSRTC.
3. Provide detailed recommendations to MSRTC which converge social welfare and efficiency through better technology and policies.
4. Assist MSRTC in its engagement with other agencies.


Vice-Chairman & Managing Director,
Maharashtra State Road Transport Corporation



5. Carry out research for MSRTC on specific topics as decided from time to time such as:
- Intercity bus transportation optimisation and management.
 - To optimise bus transportation within a taluka by improving coverage and efficiency.

Scope of the MoU

1. The scope of this MoU will be restricted to the state of Maharashtra. The studies will be carried out in broad areas and using research and study methodologies identified by IIT Bombay and MSRTC and partner agencies associated with either. At the outset, these areas are:

(i) Data analysis and modelling:

- Detailed study of the data available at MSRTC or allied agencies.
- Reporting of the data as a data-book, which will be made available for public use.
- Building of models linking various data-sets for better management and improvement in the overall efficiency.

(ii) Deployment Planning and Systems Description: A GIS-based system incorporating various assets, supply and demand nodes, bus service provisioning infrastructure and the allocations achieved. A spatial and temporal description of various scenarios and strategies adopted.

(iii) Bus service quality assessment: A framework methodology for assessing service quality and customer satisfaction based on punctuality data, crew data, GIS data and extensive field work.

(iv) Inventory and Crew Management: Use of optimization techniques to improve bus depot operations management, such as workshops and maintenance schedules, crew and vehicle utilization.

These areas may be supplemented as the need arises.

2. Roles, Responsibilities and Obligations of MSRTC

(i) Planning Officer, Planning and Marketing Department will be the co-ordinating officer for the activities under the MoU and Prof. Milind Sohoni, Department of Computer Science and Engineering will be the project specific lead person to interact with the study terms.

(ii) MSRTC will provide access to the data, report, facilities and personnel under their control, required for the study. Wherever possible, MSRTC will assist in the logistics, such as, travel to and on-site accommodation. IIT Bombay Student(s) involved in research for MSRTC will be entitled free travel facilities in MSRTC's ordinary buses for research / project work i.e (From S.T. Bus station to residence/place of research).


Vice-Chairman & Managing Director,
Maharashtra State Road Transport Corporation



(iii) MSRTC will support IIT Bombay in procuring data from allied agencies which are of interest to MSRTC operations.

(iv) MSRTC will provide support to IIT Bombay for obtaining necessary permissions, approvals, cooperation and assistance, in a timely manner, from other allied agencies for undertaking site/field visits.

(v) MSRTC will ensure timely completion of formalities, administrative approvals, and review of data/work, if required, during the study to match with the requirements of the academic schedules.

(vi) MSRTC will identify funding sources from within its own budget, e.g., under the in-house R&D head, or from Government of Maharashtra, and guide IIT Bombay on the formalities for the same. It will collaborate IIT Bombay in making suitable proposals to other funding agencies.

3. Roles, Responsibilities and Obligations of IIT Bombay

(i) IIT Bombay will identify a suitable person to lead the activities of the MoU and lead persons for each project area.

(ii) IIT Bombay will utilize existing academic frameworks and establish new frameworks if required so that the areas identified under the MoU are taken up for study by faculty and students of IIT Bombay.

(iii) IIT Bombay will identify suitable funds to supplement the support provided by MSRTC to conduct the studies. It will provide students and faculty members with the necessary liaison, logistical and coordination support to undertake the studies.

(iv) IIT Bombay will use the data and reports provided by MSRTC with discretion and will follow due diligence and use the same for academic purpose.

(v) The reports so generated by the studies will acknowledge the support provided by MSRTC. These will be used either for publication in academic journals as papers, internal reports or presented to MSRTC.

Progress of work under the MoU will be through academic work by students and faculty members or through specific projects with its own funds, taken up under the MoU.

4. Other Projects under this MoU

MSRTC, IIT Bombay may undertake together or separately, named projects under the auspices of this MoU. Each project may have its own list of lead persons, objectives, methodology, schedule, delivery, logistics, academic frameworks and funding.


**Vice-Chairman & Managing Director,
Maharashtra State Road Transport Corporation**



5. Confidentiality

Either party shall hold in confidence all confidential information, received from the other and shall not disclose the same to any third party without prior written consent of the other, during the term of this MoU and for the period of two (2) years thereafter. All parties additionally agree that they will not publicize, disclose or allow the disclosure of any confidential information about the other in a manner that may be detriment of the other.

6. Arbitration and Jurisdiction

In case of any dispute or difference between the Parties arising out of or in connection with this MoU, Vice Chairman and Managing Director, MSRTC and Director, IIT Bombay will jointly resolve the dispute in a spirit of independence, mutual respect, and shared responsibility.

7. Other Covenant

The use of name Logo or official emblem of any of the parties or any publications, documents and paper concern under the agreement allowed only after seeking explicit permission in writing.

This agreement does not give any authority to either party, to represent or exercise opinion or decision, on behalf of the other Party hereto.

8. Intellectual Property Rights

All rights pertaining to any intellectual property generated/created/invented in the due course of this MoU, will be the property of MSRTC, Government of Maharashtra, and/or IIT Bombay based on their contribution.

9. Terms and Termination

This MoU, unless extended by mutual written agreement of the parties, shall expire three (3) years after the effective date specified in the opening paragraph. This MoU may be amended or terminated earlier by mutual written agreement of the parties giving ninety (90) days prior notice at any time.

10. Relationship

Nothing in this MoU shall be construed to make either party a partner, an agent or legal representative of the other for any purpose.

11. Signed in Duplicate

This MoU is executed in duplicate with each copy being an official version of the Agreement and having equal legal validity.


Vice Chairman & Managing Director,
Maharashtra State Road Transport Corporation



12. General

The Parties undertake that this MoU is legally binding on each of them and is entered into by each such Party in good faith.

In witness whereof, the parties hereto have duly caused these presents to be executed on the day, month and year first above written.

For
Indian Institute of Technology Bombay



Name :
Title: Dean (R&D)
Date :

संकायाध्यक्ष, शोध एवं विकास
Dean, Research and Development
कृते निदेशक, आय आय टी मुंबई
For Director, IIT Bombay

For
Maharashtra State Road Transport Corporation



Name :
Title: Vice Chairman and Managing Director
Date :

**Vice-Chairman & Managing Director,
Maharashtra State Road Transport Corporation**