

S.No.	Details of MoU
1.	MoU between Ministry of Road Transport and Highways Government of India and Delhi Technological University, Delhi on Technological Collaboration on Tunnel Projects on National Highways
2.	MoU between Chief Engineer (Project) Swastik Border Road Organisation (BRO) Ministry of Defence Govt. of India and Delhi Technological University, Delhi
3.	<p>MoU between National Highway Authority of India and Delhi Technological University, Delhi for stretch:</p> <ol style="list-style-type: none"> 1. 4/6 laning of Delhi/Haryana Border to Rohtak section of NH-10 from Km. 29.700 to Km. 87.000 including Bahadurgarh and Rohtak bye-passes in the State of Haryana under NHDP Phase IIIA on Build, Operate and Transfer (BOT) basis on NH-09 2. 4 Laning of Rohtak -Bawal section NH-71 from km 363.300 (Design km 363.300) to km 450.800 (Design km 445.853) under NHDP III in the state of Haryana on Design, Build, Finance, Operate and Transfer (DBFOT) basis on NH-352
4.	<p>MoU between National Highway Authority of India and Delhi Technological University, Delhi for stretch:</p> <ol style="list-style-type: none"> 1. Km. 11.060 to Km. 42.000 on NH- 48 2. Km. 2.400 to Km. 24.000 on NH-248 A

MEMORANDUM OF UNDERSTANDING

BETWEEN

**MINISTRY OF ROAD TRANSPORT AND HIGHWAYS,
GOVERNMENT OF INDIA**

AND

DELHI TECHNOLOGICAL UNIVERSITY, DELHI

ON

**TECHNOLOGICAL COLLABORATION ON
TUNNEL PROJECTS ON
NATIONAL HIGHWAYS**

This memorandum of understanding is executed at New Delhi on 16th December, 2024

BETWEEN

Ministry of Road Transport and Highways (MoRTH), Government of India, New Delhi.

AND

Delhi Technological University (DTU), Delhi

1. Purpose/Objective of MoU

Whereas Ministry of Road Transport & Highways (MoRTH), Government of India is responsible for development & maintenance of National Highways across the country.

And whereas Delhi Technological University (DTU), formerly known as Delhi College of Engineering (DCE) is one of India's premier engineering institutions. Established in 1941 as Delhi Polytechnic, it became a college in 1965 and gained university status in 2009. The university has a distinguished faculty known for their academic and research contributions.

And whereas Ministry of Road Transport & Highways (MoRTH) intends to utilize the expertise of DTU Delhi in review of design and drawings of tunnels and its support systems, suggest remedial measures if required for tunnel projects on various National Highways in the country.

2. Scope/ broad areas of collaboration

This MoU is intended to outline the general framework for collaboration between the parties. The initial goal of this collaboration is to outline and describe certain goals, strategies and objectives, as the case may be, as well as the intent of the parties to conduct collaborative activities to establish and promote a mutually beneficial relationship. Following are the broad areas of collaboration:

Abhimanu Singh

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- (i) Thorough Review/Proof Check of designs and drawings of tunnels (including support systems such as rock bolts, shotcrete etc.) referred by MoRTH during DPR/construction stage and suggest modifications if any.
- (ii) The adequacy of the design approach shall also be reviewed.

3. Effective date of MoU: - This agreement shall come into force from the date of its signing.

4. Period / Duration of MoU: - MoU is planned for a period of 5 years from the date of signature of parties and can be extended with mutual consent depending upon the scope of ongoing and future work(s).

5. Brief of Partners

Ministry of Road Transport & Highways (MoRTH), Government of India is responsible for development & maintenance of National Highways across the country.

Delhi Technological University (DTU), formerly known as Delhi College of Engineering (DCE), is one of India's premier engineering institutions. Established in 1941 as Delhi Polytechnic, it became a college in 1965 and gained university status in 2009. The university has a distinguished faculty known for their academic and research contributions. The institute has an illustrious history of providing quality education and promoting research and entrepreneurship for over eight decades.

Ministry of Road Transport & Highways (MoRTH) intends to utilize the expertise of DTU Delhi in carrying out review of design, drawing and safety aspects and suggest remedial measures, if required for tunnel projects on various National Highways in the Country.

Dhanraj S.

[Signature]

6. **Project Site/Place of MoU:** - The co-operation programme will be conducted at the places designated by both the parties. Output processing, methodology development will also be conducted at their designated laboratories/centers respectively. The Nodal persons for this MoU will be as under:

(i) **MoRTH:** Chief Engineer (Tunnel), MoRTH, New Delhi.

(ii) **DTU:** Prof. Amit Kumar Srivastava, Department of Civil Engineering, DTU Delhi

The domain expert in DTU Delhi responsible for various tasks under this MoU is: Prof. Amit Kumar Srivastava, Department of Civil Engineering, DTU Delhi. Further, in absence of Prof. Amit Kumar Srivastava, Prof. Shilpa Pal and Prof. K.C. Tiwari will work as domain experts.

Projects will be assigned to expert by MoRTH with the approval of Director General (Road Development) & Special Secretary as per requirement.

7. **Responsibilities of each Party of MoU:** - MoRTH and DTU Delhi will cooperate in the areas of:

- (i) Rendering of technical support to each other or their consultants for review of tunnel design and necessary data related to tunnels.
- (ii) The understanding between the Parties is on project-to-project basis and the objective of such understanding shall be to mitigate the tunnel design issues to the extent possible.
- (iii) Other areas of mutual benefit to be jointly identified and agreed upon.

8. **General terms of Co-Operation**

- (i) The cooperation scheme is expected to provide a platform for mutual exchange of ideas and development of understanding on tunnel design related data.
- (ii) The cooperation agreement will be monitored through joint periodic half-yearly reviews either at DTU Delhi or at MoRTH. The review will cover the following aspects:

Amit Kumar Srivastava

[Signature]

- (a) Measure the progress of the activities and the achievements against the work plan and time schedules.
- (b) Evaluate the quality of work completed and advice on the methodology to be applied for future work.
- (c) Identify and assess factors affecting the progress and quality of the work.
- (d) Identify corrective measures to remove hurdles related with the implementation of the programme.

9. Cost and their considerations

The remuneration to the expert for each work/assignment shall be paid by MoRTH as per the norms of DTU for review/proof checking of Design.

10. Security/Non-disclosure of confidential information of the parties

The work carried out under the MoU will be unclassified and the dissemination and publication of results will be as per IPR points as discussed in section (11).

11. Protection of IPR

Each party will ensure appropriate protection of Intellectual Property Rights generated from cooperation pursuant to MoU, consistent with the respective laws, rules and regulations of India.

- (i) In case research is carried out solely and separately by the Party or the research results are obtained through the sole and separate effort of the Party, the Party concerned alone will apply for grant of IPR and once granted, the IPR will be solely owned by the concerned Party.
- (ii) In case of results obtained through joint activities, the grant of intellectual property rights will be sought by both the parties jointly and once granted, these rights will be jointly owned by the parties.
- (iii) The Parties shall not assign any rights and obligations arising out of the IPRs generated from inventions/activities carried out under the MoU to any third Party, without prior written consent of the other Party.

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12. Right/Obligation of each party

The designated personnel of each party shall meet (at least twice a year) to plan the activities and review the progress of the work. The parties shall also discuss their mutual concern, if any, and shall arrive at a broader consensus in formulating the modalities for carrying out the work relating to the agreement. The minutes of the meeting shall be recorded in writing and forwarded to the Head of Organisation of each party.

The authorized and designated official of each party shall be responsible for organizing the meetings, recording the minutes and circulating them to all concerned.

The parties shall inform each other about the attained research results or work progress, and shall exchange interim and final reports in the context of the subject of this agreement.

13. Termination of MoU

This agreement shall remain in force for period of 5 years from the date of its signing. The terms of the agreement may be amended at any time subject to mutual written agreement. Both parties may agree to exit with mutual consent in case the desired objectives could not be achieved.

14. Arbitration/Dispute Resolution among parties

In the event of any difference or dispute between the Parties, arising out of implementation of such agreements, the same should be resolved amicably through mutual consultation or proper diplomatic channels. Being Government organizations, the parties are advised to resolve such disputes or differences through mutual discussions between DG(RD)&SS and the Vice Chancellor of DTU, rather than resorting to arbitration.

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IN WITNESS WHEREOF the parties hereto by their representatives executes this MoU on the day first written above.

For and on behalf of
Ministry of Road Transport & Highways,
Government of India

For and on behalf of
Delhi Technological University (DTU),
Delhi

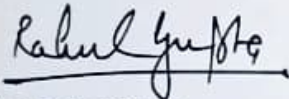


Shri D. Sarangi
Director General (Road Development) &
Special Secretary,
Ministry of Road Transport & Highways
(MoRTH),
Government of India, New Delhi



Prof. Madhusudan Singh,
Registrar,
Delhi Technological University (DTU), Delhi

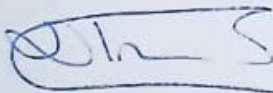
Witnesses:



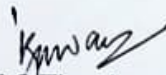
1. **Shri Rahul Gupta**
Chief Engineer,
Ministry of Road Transport & Highways
(MoRTH),
Government of India, New Delhi



1. **Prof. Prateek Sharma,**
Vice Chancellor,
Delhi Technological University (DTU), Delhi



2. **Shri Ramshid Padusha N.T.**
Superintending Engineer,
Ministry of Road Transport & Highways
(MoRTH),
Government of India, New Delhi



2. **Prof. K C Tiwari,**
Professor and Head
Department of Civil Engineering ,
Delhi Technological University (DTU), Delhi

MEMORANDUM OF UNDERSTANDING

BETWEEN

**CHIEF ENGINEER (PROJECT) SWASTIK
BORDER ROADS ORGANISATION (BRO)
MINISTRY OF DEFENCE
GOVERNMENT OF INDIA**

AND

DELHI TECHNOLOGICAL UNIVERSITY, DELHI

ON

**TECHNOLOGICAL COLLABORATION ON ROAD
MANGAN – CHUNGTHANG – LACHEN - ZEEMA**

OF

**PROJECT SWASTIK OF BRO
IN THE STATE OF SIKKIM**

Mar 2025

This memorandum of understanding is executed at New Delhi on March 2025

BETWEEN

Chief Engineer (Project) Swastik (BRO)

AND

Delhi Technological University (DTU), Delhi

1. Purpose/Objective of MoU

Whereas, **Chief Engineer (Project) Swastik of Border Roads Organisation**, is a statutory body under the ownership of the Ministry of Defence of the Government of India and responsible for development and maintenance of road networks in India's border areas in the State of Sikkim and North Bengal.

And whereas **Delhi Technological University (DTU)**, formerly known as Delhi College of Engineering (DCE) is one of India's premier engineering institutions. Established in 1941 as Delhi Polytechnic, it became a college in 1965 and gained university status in 2009. The university has a distinguished faculty known for their academic and research contributions.

And whereas **Chief Engineer (Project) Swastik of BRO** intends to utilise the expertise of **Delhi Technological University (DTU), Delhi** in advising the Terms of Reference (TOR) for Request for Proposal (RFP) prior to uploading of bids for consultancy contract followed by detailed technical scrutiny of alignment proposed by the most preferred consultant to select the best feasible and sustainable alignment, review of drawings and design, site inspection, etc.

2. Scope/ broad areas of collaboration

This MoU is intended to outline the general framework for collaboration between the parties. The initial goal of this collaboration is to outline and describe certain goals, strategies and objectives, as the case may be, as well as the intent of the parties to conduct collaborative activities to establish and promote a mutually beneficial relationship. Following are the broad areas of collaboration:-

(i) Checking of desired technical parameters during framing of RFP/Construction stages and suggest modifications, if any.

(ii) Thorough Review/Proof Check of proposed alignment options from seismic, geological, geotechnical, geomorphological, hydrological analysis, other parameter and recommend the best alignment feasible from sustainability & economic point of view during consultancy stage. In doing so, obligatory points given by **Chief Engineer (Project) Swastik** will considered.

(iii) Thorough Review/proof check of designs of Slide Mitigation proposals/Rockfall mitigation proposals/Tunnels proposals/structural designs, etc for adequacy and cost effectiveness including any other item of work referred by **Chief Engineer (Project) Swastik** during DPR preparation/Alignment Approval/Construction stages and suggest modifications, if any.

(iv) Any other technical advise sought by **Chief Engineer (Project) Swastik** during DPR preparation/Planning & Construction stages.

3. **Effective date of MoU:** - This agreement shall come into force from the date of it's signing.
4. **Period / Duration of MoU:** - MoU is planned for a period of **5 years** from the date of signature of parties and can be extended with mutual consent depending upon the scope of ongoing and future work(s). Terms of References for RFP will be finalised within 10 days of signing of MoU.

5. **Brief of Partners**

Chief Engineer (Project) Swastik / BRO is a statutory body under the ownership of the Ministry of Defence of the Government of India and responsible for development and maintenance of road networks in India's border areas in the state of Sikkim and North Bengal.

Delhi Technological University (DTU), formerly known as Delhi College of Engineering (DCE), is one of India's premier engineering institutions. Established in 1941 as Delhi Polytechnic, it became a college in 1965 and gained university status in 2009. The university has a distinguished faculty known for their academic and research contributions. The institute has an illustrious history of providing quality education and promoting research and entrepreneurship for over eight decades.

Chief Engineer (Project) Swastik / BRO intends to utilise the expertise of **DTU, Delhi** in carrying out review of design and safety aspects and suggest remedial measures, if required, for tunnels/roads/slide mitigation/rockfall mitigation measures/ on road "**Mangan-Chungthang-Lachen-Zeema**".

6. **Project Site/Place of MoU:** - The co-operation programme will be conducted at the places designated by both the parties. Output processing, methodology development will also be conducted at their designated laboratories/centers respectively. The Nodal persons for this MoU will be as under:

(i) **Brigadier Manoj Gupta, Chief Engineer (Project) Swastik, HQ Chief Engineer (Project) Swastik, Upper Burtuk, Gangtok, Sikkim** or any representative assigned by him in writing.

(ii) DTU: Prof. Amit Kumar Srivastava, Department of Civil Engineering, DTU, Delhi.

The domain expert in DTU, Delhi responsible for various tasks under this MoU is Prof. Amit Kumar Srivastava, Department of Civil Engineering, DTU, Delhi. Further, in absence of Prof. Amit Kumar Srivastava, Dr Ritu Raj and Prof N. Dev will work as domain experts.

Projects will be assigned to Experts by Chief Engineer (Project) Swastik.

7. **Responsibilities of each Party of MoU:- Chief Engineer (Project) Swastik of BRO and DTU, Delhi will co-operate in the areas of:-**

(i) Rendering of technical support to each other or their consultants for review of project road "Mangan-Chungthang-Lachen-Zeema".

(ii) The understanding between the Parties is for the road alignment "Mangan-Chungthang-Lachen-Zeema" and the objective of such understanding shall be to mitigate the project issues to the extent possible.

(iii) Other areas of mutual benefit to be jointly identified and agreed upon.

8. **General terms of Co-Operation**

(i) The cooperation agreement will be monitored through joint periodic quarterly reviews either at DTU, Delhi or at HQ Chief Engineer (Project) Swastik / HQ DGBR and will cover the following aspects:-

(a) Measure the progress of the activities and the achievements against the work plan and time schedules.

(b) Thorough Review/Proof Check of proposed alignment options/designs from seismic, geological, geotechnical, geomorphological & hydrological analysis etc and recommend the best alignment feasible from sustainability & economic point of view.

9. **Cost and their considerations**

The remuneration to the expert for each work/assignment shall be paid by Chief Engineer (Project) Swastik as per the norms of DTU which will form part of this MoU.

10. **Security/Non-disclosure of confidential information of the parties**

The work carried out under the MoU will be governed by the provisions contained in the Indian Official Secret Act, 1923 and the dissemination and publication of results will be as per IPR points as discussed in Section (11).

11. Protection of IPR

Each party will ensure appropriate protection of Intellectual Property Rights generated from cooperation pursuant to MoU, consistent with the respective laws, rules and regulations of India.

- (i) In case research is carried out solely and separately by the Party or the research results are obtained through the sole and separate effort of the Party, the Party concerned alone will apply for grant of IPR and once granted, the IPR will be solely owned by the concerned Party.
- (ii) In case of results obtained through joint activities, the grant of intellectual property rights will be sought by both the parties jointly and once granted, these rights will be jointly owned by the parties.
- (iii) The Parties shall not assign any rights and obligations arising out of the IPRs generated from inventions/activities carried out under the MoU to any third Party, without prior written consent of the other Party.
- (iv) In case of commercialisation of jointly developed technology, a revenue-sharing model shall be agreed upon by both parties in writing which will be supplementary to the present MoU before filing for Intellectual Property Rights.

12. Right/Obligation of each party

The designated personnel of each party shall meet (at least once in a quarter) to plan the activities and review the progress of works. The parties shall also discuss their mutual concern, if any, and shall arrive at a broader consensus in formulating the modalities for carrying out the work relating to the agreement. The minutes of the meeting shall be recorded in writing and forwarded to the Heads of Organisation of each party.

The authorised and designated official of each party shall be responsible for organising the meetings, recording the minutes and circulating them to all concerned.

The parties shall inform each other about the attained research results or work progress, and shall exchange interim and final reports in the context of the subject of this agreement.

13. Termination of MoU

This agreement shall remain in force for a period of **5 Years** from the date of its signing. The terms of the agreement may be amended at any time subject to mutual written agreement. Both parties may agree to exit with mutual consent in case the desired objectives could not be achieved/not required with prior written notice of 60-days period to the other party.

14. Arbitration/Dispute Resolution among parties

(i) In the event of any difference or dispute between the Parties, arising out of implementation of such agreements, the same should be resolved amicably through mutual consultation or proper diplomatic channels. **Being Government Organisations**, the parties are advised to resolve such disputes or differences through mutual discussions between **Chief Engineer (Project) Swastik / BRO and the Registrar of DTU.**

(ii) If the said dispute cannot be resolved mutually, then the dispute shall be referred to arbitration in accordance with the Arbitration & Conciliation Act, 1996, with arbitration proceedings held mutually at New Delhi, India.

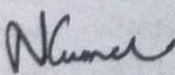
IN WITNESS WHEREOF the parties hereto by their representatives execute this MoU on the day first written above.



Manoj Gupta
Brigadier
Chief Engineer Project Swastik
Border Roads Organisation,
Ministry of Defence
Government of India

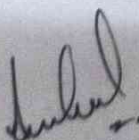
Prof Madhusudan Singh
Registrar
Delhi Technological University (DTU),
Delhi

Witnesses:



1. HQ Chief Engineer (P) Swastik,
Upper Burtuk, Gangtok
State – Sikkim
Pin - 931717

1. Dr. A K Srivastava
Department of Civil Engineering ,
Delhi Technological University (DTU),
Delhi

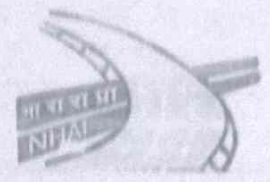


2. HQ Chief Engineer (P) Swastik,
Upper Burtuk, Gangtok
State – Sikkim
Pin - 931717

2. Col (Prof) W C Tiwari
H.O.D
Department of Civil Engineering ,
Delhi Technological University (DTU),
Delhi



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MEMORANDUM OF UNDERSTANDING

Between



National Highways Authority of India

and



Delhi Technological University, Delhi

IN CONNECTION WITH

The Intellectual Prudence of Students and Faculty towards improvement of road infrastructure ecosystem in the country under an ambit of Institutional social Responsibility (ISR)

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MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (hereinafter referred to as "MoU") entered into on this ... day of ... 2020 by and between:

National Highways Authority of India (NHAI), Ministry of Road Transport and Highways, Project Implementation Unit, 305, Vidyaniketan Road, Model Town, Rohtak, Haryana 124001 through its Regional office, Chandigarh, which expression shall, unless repugnant to the context or meaning thereof be deemed to mean and include its successors and permitted assigns), of the First party;

AND

The Delhi Technological University, Delhi

(IIT/NIT/reputed college of Engg, as the case may be) (Hereinafter called as which the expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its successors and permitted assigns) of the Second Party.

WHEREAS,

Both, DELHI TECHNOLOGICAL UNIVERSITY, DELHI and NHAI are desirous of working together with mutual cooperation for dissemination of respective expertise in civil/highway engineering field through the road infrastructure development.

NOW, THEREFORE, IT IS HEREBY AGREED BY THE PARTIES AS FOLLOWS:

1. INTENT:

National Highways Authority of India (NHAI) intends to associate the DELHI TECHNOLOGICAL UNIVERSITY, DELHI who shall voluntarily contribute its share of experience for betterment of the highway infrastructure.

2. SCOPE OF THE MoU:

The primary scope of MOU inter alia includes the following:

(i) NHAI shall facilitate the faculty, researchers and students of the Institute to familiarize with the latest trends in the highway/transportation sector with a common objective of sharing the knowledge in their respective domain. This will, in one hand, facilitate to bridge the industry-institution gap and familiarize students with the latest trends in industry and on the other hand the research output could be suitably adopted in practice by NHAI.

(ii) The Institute shall adopt nearby stretches of NHs as specified in the Appendix-1 as a voluntary initiative under ambit of Institutional Social Responsibility (ISR). The list of stretches may be modified by deletion/addition by mutual consent of NHAI and the Technical Institute.

(iii) The adopted stretch may be used as a field of study for faculty, researchers and students.

(iv) NHAI shall offer internship to 40 number of undergraduate/postgraduate students (20 students of undergraduate & 20 students of postgraduate) of the Institute. The duration of internship will be of 2 months in a year based on experience and field requirement, the same may be reviewed in subsequent years.

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(v) NHA shall pay stipend @ Rs 8000/- (Rupees Eight Thousand per month) for undergraduate students and @ Rs. 15000/- (Rupees Fifteen thousand only per month) to Postgraduate students. All other arrangements including stay shall be responsibility of the Institute or the concerned students/faculty/scholar/researcher. However, depending upon availability, NHA may extend transportation facility to the interns within the project jurisdiction.

3. Roles and Responsibilities:

The scope of this MOU shall be carried out in a collaborative mode between NHA and the Technical Institute. The Roles & Responsibilities of NHA and DELHI TECHNOLOGICAL UNIVERSITY, DELHI in performing the defined objective shall be as follows:

NHA

- a. NHA shall provide the list of potential candidate National Highway stretches for adopting by the Technical Institute;
- b. NHA shall facilitate availability of relevant data required with specific reference to the above stretches through its field office/consultant/concessionaire/contractor engaged in the project ;
- c. NHA will nominate an officer as a point of contact for all correspondence in carrying out the defined objective;
- d. NHA shall facilitate the faculty, researchers and students of the Institute to give access to the site of the identified stretch being adopted by the Technical Institute, relevant documents for the purpose of activities to be carried by these intellectuals of the Institute;
- e. NHA through its field office/Consultant/Concessionaire/Contractor engaged in the project, as per reasonable requirement, will disseminate and familiarize the latest trends and know how in highway/transportation sector in general and the identified project in specific to the authorized faculty, researchers and students of the Institute;
- f. NHA may suitably adopt the research output and feedback received from the Technical Institute in practice for qualitative improvement as deemed fit at appropriate stage of implementation.
- g. NHA may support creation of Lab infrastructure in the Institute and can sponsor relevant research project that helps in using alternative resource material and improving quality of roads.
- h. The NH stretch adopted can be co-branded with the associated technical institute by NHA.

DELHI TECHNOLOGICAL UNIVERSITY, DELHI

- a. The Institute shall adopt stretches of NHs as specified in the **Appendix-1** as a voluntary initiative.
- b. The Technical Institute through its authorized faculty, researchers and students will carry out periodic investigation and give suitable suggestions for improving the efficiency of existing highway asset inter alia covering the following aspects:
 - (i) Improvements in safety provision by removing existing deficiencies;
 - (ii) Improvements in continual maintenance of the stretch using new technologies;
 - (iii) Localized solutions for removal of congestion points thereby increasing the average speed of traffic flow;

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- (iv) Improvements in the riding comfort through cost effective measures based on innovative technologies on practices applicable in the area;
 - (v) Viability of new way side amenities for road user based on the existing traffic pattern and user expectations;
 - (vi) Potential solutions to old recurring problems based on local experience etc.
- c. The Institute may also associate with the Consultants/NHAI during conceptualization, design and project preparation of new projects and suggest the relevant parameters and innovations based on experience specific to the site climate, topography and resource potential for better socio economic outcome
- d. The DELHI TECHNOLOGICAL UNIVERSITY, DELHI will nominate a coordinator as a point of contact for all correspondence in carrying out the defined objective as well as inform, from time to time.

4. MODIFICATIONS TO MOU

Any modifications to this MoU in near future shall be made only with mutual consent of both the parties in writing. Unless otherwise agreed to, the effective date of the modification/changes shall be the date on which the modification is signed by both the parties.

5. EFFECTIVE DATE AND PERIOD OF MOU

This MoU shall come into effect for all its intents and purposes from the immediate effect and shall remain valid for a period of 5 years from the date of signing unless terminated earlier by mutual consent by either party by giving 60 days' notice in writing to the other party.

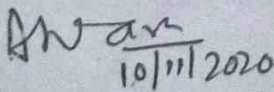
For DTU

For NHAI


(Authorized Signatory)
Registrar
Delhi Technological University
(Govt. of NCT of Delhi)
(Formerly Delhi College of Engg.)
Shahbad Daulatpur, Bawana Road,
Delhi-110042

(Authorized Signatory)

Witness (1):


10/11/2020
Professor
Deptt. of Civil Engineering
Delhi Technological University
Govt. of NCT of Delhi
(Formerly Delhi College of Engg.)
Shahbad Daulatpur, Bawana Road,
Delhi-110042

Witness (2):

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The Institute shall adopt the following stretches of NHs as a voluntary initiative under the ambit of Institutional Social Responsibility (ISR). APPENDIX-1

S.No	Details of the stretch (From Chainage to Chainage)	NH No	Length	Stage implementation (completed/under construction/under maintenance/project preparation)	of	Remarks
1.	4/6 laning of Delhi/Haryana Border to Rohtak section of NH-10 from Km. 29.700 to Km. 87.000 including Bahadurgarh and Rohtak bye-passes in the State of Haryana under NHDP Phase IIIA on Build, Operate and Transfer (BOT) basis.	NH-09	63.49	COMPLETED		
2.	4 Laning of Rohtak -Bawal section NH 71 from km 363.300 (Design km 363.300) to km 450.800 (Design km 445.853) under NHDP III in the state of Haryana on Design, Build, Finance, Operate and Transfer (DBFOT) basis	NH-352	83.65	COMPLETED		

Above list of stretches may be modified by deletion/addition by mutual consent of NHA and the Technical Institute.



MEMORANDUM OF UNDERSTANDING

Between



National Highways Authority of India

and



Delhi Technological University, Delhi

IN CONNECTION WITH

The Intellectual Prudence of Students and Faculty towards improvement of road infrastructure ecosystem in the country under an ambit of Institutional social Responsibility (ISR)

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (hereinafter referred to as "MoU") entered into on [redacted] day of [redacted] [redacted] by and between:

National Highways Authority of India (NHAI), Ministry of Road Transport and Highways, Project Implementation Unit, 305, Vidyaniketan Road, Model Town, Rohtak, Haryana 124001 through its Regional office, Chandigarh, which expression shall, unless repugnant to the context or meaning thereof be deemed to mean and include its successors and permitted assigns), of the First party;

AND

The Delhi Technological University, Delhi

(IIT/NIT/reputed college of Engg, as the case may be) (Hereinafter called as which the expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its successors and permitted assigns) of the Second Party.

WHEREAS,

Both, DELHI TECHNOLOGICAL UNIVERSITY, DELHI and NHAI are desirous of working together with mutual cooperation for dissemination of respective expertise in civil/highway engineering field through the road infrastructure development.

NOW, THEREFORE, IT IS HEREBY AGREED BY THE PARTIES AS FOLLOWS:

1. INTENT:

National Highways Authority of India (NHAI) intends to associate the DELHI TECHNOLOGICAL UNIVERSITY, DELHI who shall voluntarily contribute its share of experience for betterment of the highway infrastructure.

2. SCOPE OF THE MoU:

The primary scope of MOU inter alia includes the following:

(i) NHAI shall facilitate the faculty, researchers and students of the Institute to familiarize with the latest trends in the highway/transportation sector with a common objective of sharing the knowledge in their respective domain. This will, in one hand, facilitate to bridge the industry-institution gap and familiarize students with the latest trends in industry and on the other hand the research output could be suitably adopted in practice by NHAI.

(ii) The Institute shall adopt nearby stretches of NHs as specified in the **Appendix-1** as a voluntary initiative under ambit of Institutional Social Responsibility (ISR). The list of stretches may be modified by deletion/addition by mutual consent of NHAI and the Technical Institute.

(iii) The adopted stretch may be used as a field of study for faculty, researchers and students.

(iv) NHAI shall offer internship to 40 number of undergraduate/postgraduate students (20 students of undergraduate & 20 students of postgraduate) of the Institute. The duration of internship will be of 2 months in a year based on experience and field requirement, the same may be reviewed in subsequent years.

(v) NHAJ shall pay stipend @ Rs 8000/- (Rupees Eight Thousand per month) for undergraduate students and @ Rs. 15000/- (Rupees Fifteen thousand only per month) to Postgraduate students. All other arrangements including stay shall be responsibility of the Institute or the concerned students/faculty/scholar/researcher. However, depending upon availability, NHAJ may extend transportation facility to the interns within the project jurisdiction.

3. Roles and Responsibilities:

The scope of this MOU shall be carried out in a collaborative mode between NHAJ and the Technical Institute. The Roles & Responsibilities of NHAJ and DELHI TECHNOLOGICAL UNIVERSITY, DELHI in performing the defined objective shall be as follows:

NHAJ

- a. NHAJ shall provide the list of potential candidate National Highway stretches for adopting by the Technical Institute;
- b. NHAJ shall facilitate availability of relevant data required with specific reference to the above stretches through its field office/consultant/concessionaire/contractor engaged in the project ;
- c. NHAJ will nominate an officer as a point of contact for all correspondence in carrying out the defined objective;
- d. NHAJ shall facilitate the faculty, researchers and students of the Institute to give access to the site of the identified stretch being adopted by the Technical Institute, relevant documents for the purpose of activities to be carried by these intellectuals of the Institute;
- e. NHAJ through its field office/Consultant/Concessionaire/Contractor engaged in the project, as per reasonable requirement, will disseminate and familiarize the latest trends and know how in highway/transportation sector in general and the identified project in specific to the authorized faculty, researchers and students of the Institute;
- f. NHAJ may suitably adopt the research output and feedback received from the Technical Institute in practice for qualitative improvement as deemed fit at appropriate stage of implementation.
- g. NHAJ may support creation of Lab infrastructure in the Institute and can sponsor relevant research project that helps in using alternative resource material and improving quality of roads.
- h. The NH stretch adopted can be co-branded with the associated technical institute by NHAJ.

DELHI TECHNOLOGICAL UNIVERSITY, DELHI

- a. The Institute shall adopt stretches of NHs as specified in the **Appendix-1** as a voluntary initiative.
- b. The Technical Institute through its authorized faculty, researchers and students will carry out periodic investigation and give suitable suggestions for improving the efficiency of existing highway asset inter alia covering the following aspects:
 - (i) Improvements in safety provision by removing existing deficiencies;
 - (ii) Improvements in continual maintenance of the stretch using new technologies;
 - (iii) Localized solutions for removal of congestion points thereby increasing the average speed of traffic flow;

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- (iv) Improvements in the riding comfort through cost effective measures based on innovative technologies on practices applicable in the area;
 - (v) Viability of new way side amenities for road user based on the existing traffic pattern and user expectations;
 - (vi) Potential solutions to old recurring problems based on local experience etc.
- c. The Institute may also associate with the Consultants/NHAI during conceptualization, design and project preparation of new projects and suggest the relevant parameters and innovations based on experience specific to the site climate, topography and resource potential for better socio economic outcome
- d. The DELHI TECHNOLOGICAL UNIVERSITY, DELHI will nominate a coordinator as a point of contact for all correspondence in carrying out the defined objective as well as inform, from time to time.

4. EFFECTIVE DATE AND PERIOD OF MOU

This MoU shall come into effect for all its intents and purposes from the immediate effect and shall remain valid for a period of 5 years from the date of signing unless terminated earlier by mutual consent by either party by giving 60 days' notice in writing to the other party.

For DTU

[Signature]
 10/11/2020
 (Authorized Signatory)
 Registrar
 Delhi Technological University
 (Govt. of NCT of Delhi)
 (Formerly Delhi College of Engg.)
 Shahbad Daulatpur, Bawana Road,
 Delhi-110042

Witness (1): *[Signature]*
 10/11/2020

Professor
 Deptt. of Civil Engineering
 Delhi Technological University
 Govt. of NCT of Delhi
 (Formerly Delhi College of Engg.)
 Shahbad Daulatpur, Bawana Road,
 Delhi-110042

For NHAI

[Signature]
 10/11
 (Authorized Signatory)
 महाप्रबंधक एवं / GM (T) & RO Delhi
 क्षेत्रीय अधिकारी
 भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
 National Highways Authority of India
 (सड़क परिवहन और राजमार्ग मंत्रालय)
 (Ministry of Road Transport & Highways)
 जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-75
 G - 5 & 6, Sector - 10, Dwarka, New Delhi - 75

Witness (2): *[Signature]*
 10/11/2020
 VISHVAS WAID
 (CSE)
 SRE Engg.

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APPENDIX-1

The Institute shall adopt the following stretch(es) of NHs as a voluntary initiative under the ambit of Institutional Social Responsibility (ISR).

S.No	Details of the stretch (From Chainage to Chainage)	NH No	Length	Stage of implementation (completed/under construction/under maintenance/project preparation)	Remarks
1.	Km. 11.060 to Km. 42.000	48	30.940	Completed and in O&M Stage	
2.	Km. 2.400 to Km. 24.000	248 A	21.600	Under Construction.	

Above list of stretches may be modified by deletion/addition by mutual consent of NHAI and the Technical Institute.