

18th June 2019**CERTIFICATE OF SANCTION**

This is to certify that a Research Proposal entitled, “**Value Addition of Waste Plastics for Sustainable Development**” has been approved under “**TEQIP Collaborative Research Scheme**” to the team of following Collaborators:

1	Dr. ANIL KUMAR VARMA	Principal Investigator	Harcourt Butler Technical University (Formerly HBTI), Kanpur
2	Dr. DEEPAK SRIVASTAVA	Co-Principal Investigator	Harcourt Butler Technical University, Kanpur, Uttar Pradesh
3	Mr. ASHWANI RATHORE	Co-Principal Investigator	Harcourt Butler Technical University, Kanpur, Uttar Pradesh
4	Dr. SADHANA SACHAN	Co-Principal Investigator	Motilal Nehru National Institute of Technology, Allahabad,
5	Dr. DEEPAK YADAV	Co-Principal Investigator	Harcourt Butler Technical University, Kanpur, Uttar Pradesh

A grant of ₹**1468000** (*Rupees Forteen Lakh Sixty Eight Thousand Only*) has been sanctioned for the project, as per following details:

S.No.	Expenditure Head	Sanctioned Amount (₹)
1	Non-recurring	1043333
2	Recurring	
	(i) Domestic Travel	100000
	(ii) Contingencies	120000
	(iii) Consumables	158333
	(iv) Miscellaneous	46667
	Total	1468000

The project is to be completed with expected outcomes achieved on or before 30th Sept 2020.

Prof. (Dr.) P M Khodke
Central Project Advisor

18th June 2019**CERTIFICATE OF SANCTION**

This is to certify that a Research Proposal entitled, "CO-CH₄ oxidation catalysts for CNG emissions abatement" has been approved under "TEQIP Collaborative Research Scheme" to the team of following Collaborators:

1	Dr. DEEPAK YADAV	Principal Investigator	Harcourt Butler Technical University (Formerly HBTI), Kanpur
2	Dr. ASHWINI SOOD	Co-Principal Investigator	HBTU, Kanpur
3	Dr. PRADEEP KUMAR	Co-Principal Investigator	IIT(BHU) Varanasi
4	Dr. PARDEEP SINGH	Co-Principal Investigator	PGDAV College, University of Delhi, New Delhi
5	Dr. ANIL KUMAR VARMA	Co-Principal Investigator	HBTU, Kanpur

A grant of ₹1087000 (Rupees Ten Lakhs Eighty Seven Thousand and Paise Zero Only) has been sanctioned for the project, as per following details:

S.No.	Expenditure Head	Sanctioned Amount (₹)
1	Non-recurring	645000
2	Recurring	
	(i) Domestic Travel	90000
	(ii) Contingencies	125000
	(iii) Consumables	193333
	(iv) Miscellaneous	33333
	Total	1087000

The project is to be completed with expected outcomes achieved on or before 30th Sept 2020.



Prof. (Dr.) P M Khodke
Central Project Advisor

18th June 2019**CERTIFICATE OF SANCTION**

This is to certify that a Research Proposal entitled, “**Design and Development of miniaturized low cost sensor device for metal ions.**” has been approved under “**TEQIP Collaborative Research Scheme**” to the team of following Collaborators:

1	Dr. SHAIENDRA KUMAR PANDEY	Principal Investigator	Harcourt Butler Technical University (Formerly HBTI), Kanpur
2	Dr. SANJIV GUPTA	Co-Principal Investigator	Harcourt Butler Technical University (Formerly HBTI), Kanpur
3	Dr. ANURAG SRIVASTAVA	Co-Principal Investigator	ABV - Indian Institute of Information Technology and Management, Gwalior
4	Dr. IDA TIWARI	Co-Principal Investigator	Institute of Science, Banaras Hindu University, Varanasi
5	Mr. PARTHA SAHA	Co-Principal Investigator	Harcourt Butler Technical University (Formerly HBTI), Kanpur

A grant of ₹**1207000** (*Rupees Twelve Lakh Seven Thousand Only*) has been sanctioned for the project, as per following details:

S.No.	Expenditure Head	Sanctioned Amount (₹)
1	Non-recurring	898667
2	Recurring	
	(i) Domestic Travel	33333
	(ii) Contingencies	66667
	(iii) Consumables	150000
	(iv) Miscellaneous	58333
	Total	1207000

The project is to be completed with expected outcomes achieved on or before 30th Sept 2020.

Prof. (Dr.) P M Khodke
Central Project Advisor

18th June 2019**CERTIFICATE OF SANCTION**

This is to certify that a Research Proposal entitled, “**Development and Analysis of Miniaturized Heat Transfer Devices**” has been approved under “**TEQIP Collaborative Research Scheme**” to the team of following Collaborators:

1	Dr. RAGHWENDRA SINGH	Principal Investigator	Harcourt Butler Technical University (Formerly HBTI), Kanpur
2	Dr. SHAIENDRA KUMAR PANDEY	Co-Principal Investigator	Harcourt Butler Technical University, Kanpur
3	Dr. M. SIRAJ ALAM	Co-Principal Investigator	Motilal Nehru National Institute of Technology
4	Dr. RAM NARESH	Co-Principal Investigator	Harcourt Butler Technical University, Kanpur

A grant of ₹**1863000** (*Rupees Eighteen Lakh Sixty Three Thousand Only*) has been sanctioned for the project, as per following details:

S.No.	Expenditure Head	Sanctioned Amount (₹)
1	Non-recurring	1350000
2	Recurring	
	(i) Domestic Travel	150000
	(ii) Contingencies	175000
	(iii) Consumables	125000
	(iv) Miscellaneous	62500
	Total	1863000

The project is to be completed with expected outcomes achieved on or before 30th Sept 2020.



Prof. (Dr.) P M Khodke
Central Project Advisor

18th June 2019**CERTIFICATE OF SANCTION**

This is to certify that a Research Proposal entitled, “**Photonic crystal cavity based optical sensor for the application of gas sensing in mines.**” has been approved under “**TEQIP Collaborative Research Scheme**” to the team of following Collaborators:

1	Mr. PARTHA SAHA	Principal Investigator	Harcourt Butler Technical University (Formerly HBTI), Kanpur
2	Prof. MANOJ KUMAR SHUKLA	Co-Principal Investigator	Harcourt Butler Technical University, Kanpur
3	Dr. MRINAL SEN	Co-Principal Investigator	IIT (ISM) Dhanbad
4	Dr. PRAVEEN CHANDRA PANDEY	Co-Principal Investigator	IIT (BHU), Varanasi
5	Dr. SHAILENDRA KUMAR PANDEY	Co-Principal Investigator	Harcourt Butler Technical University, Kanpur

A grant of ₹**1580000** (*Rupees Fifteen Lakh Eighty Thousand Only*) has been sanctioned for the project, as per following details:

S.No.	Expenditure Head	Sanctioned Amount (₹)
1	Non-recurring	1180000
2	Recurring	
	(i) Domestic Travel	100000
	(ii) Contingencies	100000
	(iii) Consumables	100000
	(iv) Miscellaneous	100000
	Total	1580000

The project is to be completed with expected outcomes achieved on or before 30th Sept 2020.

Prof. (Dr.) P M Khodke
Central Project Advisor