Plot No.1 (A), CNI Complex, Patia, Bhubaneswar – 751024, Odisha, India.

[AFFILIATED TO BPUT, ODISHA]

www.coeb.ac.in

DEPARTMENT OF MECHANICAL ENGINEERING

PRINCIPAL

College of Engineering Bhubaneswar

ADD-ON COURSE: Advanced Welding Techniques

[Programme: B.Tech, Mechanical Engg.]
Semester: 3rd

Course Objectives:

- To impart knowledge regarding various advanced welding practices in industries.
- To understand the various parameters and requirements for welding processes.
- To know the comparative merits and demerits of various welding processes.
- To understand the right kind of welding technique suitable for various joints.
- To learn about the joint designs adopted in different types of welding techniques.

SYLLABUS

Total Lecture Hours: 40

MODULE 1:

(14 hours)

Introduction to consolidation processes, Classification of welding processes, some common concerns, types of fusionwelds and types of joints, Design considerations, Heat effects, Weldability and join ability. Welding terms and definitions, welding positions, elements of and construction of welding symbols. Checks prior to weld joint preparation, joint preparation checks, preheating and inter-pass heating, post weld heating, heating processes, post heat treatments, insulation of heated joints.

MODULE 2: (14 hours)

Solidification of weld metal: Principle of solidification of weld metal, modes of solidification, effect of welding parameters on weld structure, grain refinement principle of weld metal, method of weld metal refinement, inoculation, are pulsation, external excitation.

Heat affected zone and weld metal: Transformations in HAZ of steel, factorsaffecting changes in microstructure and mechanical properties of HAZ, reactions in weld pool- gas metal reaction, slag metal reaction.

MODULE 3: (12 hours)

Codes governing welding inspection: Structural welding code; ASME boiler and pressure vessel code, spot examination of welded joints, duties of the inspector, ASTM standards, API standards. Chemical, Metallurgical, and Mechanicaltesting of weldments: Comparison

of destructive and non-destructive tests, chemical tests, forms of corrosion, testingfor corrosion resistance, metallographic tests.

Text Book:

- 1. Khanna O. P. 'A Text Book on Welding Technology' Dhanpat Rai and Sons, New Delhi 2013
- 2. Parmar R. S. 'Welding Process and Technology' Khanna Publishers, Delhi 1992
- 3. Dr. S.P. Tewari & S. A. Rizvi-Advanced welding Technology- S. K. Kataria, 4th Edition

Reference Text Book:

- 1. Welding technology, R. Bittle, TMH
- 2. American society for metals, metal hand book vol.6
- 3. Welding process technology-Houldcraft PT-cambridgeuniv.press

Online resources:

https://archive.nptel.ac.in/courses/112/103/112103244/

Evaluation Criteria

- Mandatory attendance of 75% for each student.
- Conduction of two internal assessments and students have to secure 50% marks in each assessment.
- Certificates will be awarded to each students fulfilling the above criteria.

Designed & developed by: Dr. Subhakanta Nayak & Dr. N. H. S. Ray

PRINCIPAL Phubanesw

Callege of Engineering Bhubaneswar

H.O.D., Metch. Engg.

Mechanical Engineering

College of Engineering Bhubaneswar

PRINCIPAL
College of Engineering Bhubaneswar



Plot No.1 (A), CNI Complex, Patia, Bhubaneswar - 751024, Odisha, India.

NOTICE

Department of Mechanical Engineering Add On Course 2020-2021

Ref No: COEB/ME/2020/23

Date: 28.08.2020

It is hereby informed to all the students that the Department of Mechanical Engineering is going to start the following Add-on courses for <u>Academic year 2020-2021</u>. All the students are instructed to enroll their names for the following courses on or before 10.09.2020. The classes will be commenced from $\underline{14/09/2020}$ in ON_LINE MODE from 5.30pm to 7.30pm. You can contact the following course co-ordinators for enrolment and any queries.

SI No.	Name of Add-on Course	Sem	Duration in hours	Name of the course co- ordinators
1	Advanced Welding Techniques	3 rd	40	Dr. Sujit Ku. Khuntia
2	Smart Manufacturing for Industry 4.0	5 th	40	Prof. Jagannath Mohapatra
3	Boiler Safety	7 th	40	Prof. Tapas Kumar Chand

Mechanical Engineering Department Mechanical Engineering Bhubaneswar

Copy to:

1. Vice Chairman

2. Executive Director

3. Principal

4. All Notice Board.

5. A.O(Admin)

6. All HODs

7. Hostel, Security

PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR (COEB) ADD-ON COURSE ENROLLMENT SHEET

ON-LINE MODE

Name of the Department: Department of Mechanical Engineering

Course Title: Advanced Welding Techniques

Academic Year: 2020-21 Semester: 3rd

Duration: 50MES

Student's Declaration/Undertaking

- 1. I do hereby undertake to participate in the above mentioned add on course.
- 2. I do hereby, promise to abide by the admissible rules and regulations, concerning discipline, attendance, etc. of the department, and also to follow the Code of Conduct prescribed for the students of the Institute, as in force from time to time.

S1. No.	Registration No.	Name of the Student	Remarks by the Course Coordinator
1	1901219145	AMBIKA PRASAD BARIK	
2		AMRIT KUMAR KAR	Certified that the Enrollment Sheet is prepared
3		ARJEET MAJHEE	taking the consents of the students to enroll
4		BIBEKANANDA JENA	themselves in this Certificate Course (Add-On)
5		BISHNU PRASAD MOHANTA	be conducted in Virtual Mode (ON-LINE) during
6		DEEPAN KUMAR BISWAL	the Pandemic COVID'19 through the link provi
7		KHAGESWAR MALIK	by the Department.
8		LIPU PRADHAN	They have also gone through the declaration undertaking to be strictly abided by them duri
9		PRABHU SANKAR SINGH	the course period.
10		SHYAM SUNDAR BHOI	life course period.
11		SUVAM ASHIRBAD	
12		ABHIJIT SETHY	
13		ABHISHEK BEHERA	
14		ABHISHEK KASHYAP	
15		ABINASH PAHADASINGH	
16		ARSHAD MOHANTY	
17		AYUSH PARIDA	
18		BIDYABHUSAN KHATUA	
19		BISHAL ROUT	
20		CHANDAN KUMAR	
21	1901219271	DEBABRATA MISHRA	
22		DEBASIS MOHANTY	.53
23	1901219273	DEBASISH SAHU	
24	1901219274	DIBYAJYOTI PALAI	
25		FARHAN ALAM	
26	1901219276	GOBINDA PRASAD	
27		HEMANTA KUMAR	
28	1901219278	KALIPRASAD SATAPATHY	
29	1901219279	MANOJ KUMAR KHADANGA	
30	1901219280	MANOJ KUMAR MALICK	Sphurtia
31			- Carping
32	1901219282	PITABAS BEHERA	Course Coordinator
33		PRATYUSH KUMAR DHAL	(Signature with Seal)
34		PRIYA KUMARI SINGH	(Signature with Sear)
35		RAHUL KUMAR DIAN	ALGE CA
36		RAJAT DIXIT	(3/47/21
37		RAJIB KUMAR NANDI	18/ \$ 18/
38	1901219288	RAJIB KUMAR RAY	14 3 151
39	1901219289	RAKESH RANJAN ROUTARA	Y
40	190121929	SAUDAMINI BEHERA	PHIIRANESWAR (COER)

rollment Sheet is prepared by its of the students to enroll Certificate Course (Add-On) to rtual Mode (ON-LINE) during D'19 through the link provided e Department.

ne through the declaration/ trictly abided by them during course period.

COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

College of Engineering Bhubaneswar



ADD-ON COURSE ENROLLMENT SHEET

ON-LINE MODE

Name of the Department: Department of Mechanical Engineering

Course Title: Advanced Welding Techniques

Academic Year: 2020-21 Semester: 3rd

Duration:

Student's Declaration/Undertaking

1. I do hereby undertake to participate in the above mentioned add on course.

2. I do hereby, promise to abide by the admissible rules and regulations, concerning discipline, attendance, etc. of the department, and also to follow the Code of Conduct prescribed for the students of the Institute, as

Sl. No.	Registration No.	Name of the Student
41	1901219291	SAYED MOHAMMAD ABDULLAH
42	1901219292	SHIBASHANKAR BIRUA
43	1901219293	SUBHAM KUMAR JENA
44	1901219294	SUBHRANSU SINGH
45	1901219295	SUBRAT KUMAR GOPAL
46	1901219296	SURENDRA SAW

Remarks by the Course Coordinator

Certified that the Enrollment Sheet is prepared by taking the consents of the students to enroll themselves in this Certificate Course (Add-On) to be conducted in Virtual Mode (ON-LINE) during the Pandemic COVID'19 through the link provided by the Department.

They have also gone through the declaration/ undertaking to be strictly abided by them during the course period.

> Course Coordinator (Signature with Seal)

utia

College of Engineering Bhubaneswar



SI No. Name of the Course: Advanced Welding Techniques Programme: B Tech in MECHANICAL ENGINEERING Duration: 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 S 6 1901219262 ABHIJIT SETHY 1901219155 SUVAM ASHIRBAD 1901219153 PRABHU SANKAR SINGH 1901219151 KHAGESWAR MALIK 1901219147 ARJEET MAJHEE 1901219145 AMBIKA PRASAD BARIK 1901219265 ABINASH PAHADASINGH 1901219263 ABHISHEK BEHERA 1901219154 SHYAM SUNDAR BHOI 1901219150 DEEPAN KUMAR BISWAL 1901219149 BISHNU PRASAD MOHANTA 1901219148 BIBEKANANDA JENA 1901219146 AMRIT KUMAR KAR 1901219276 GOBINDA PRASAD 1901219274 DIBYAJYOTI PALAI 1901219270 CHANDAN KUMAR 1901219269 BISHAL ROUT 1901219267 AYUSH PARIDA 1901219264 ABHISHEK KASHYAP 1901219152 LIPU PRADHAN 1901219277 HEMANTA KUMAR 1901219275 FARHAN ALAM 1901219273 DEBASISH SAHU 1901219272 DEBASIS MOHANTY 1901219271 DEBABRATA MISHRA 1901219268 BIDYABHUSAN KHATUA 1901219266 ARSHAD MOHANTY Reg. No. Name of the Students 14/9 U DEPARTMENT OF MECHANICAL ENGINEERING Date 5 Semester: 3rd Sem STUDENT ATTENDANCE SHEET ADD ON/CERTIFICATE COURSE Date Date Date Date Date Remarks of Course Coordinator (P-Present, A-Absent) Academic Year: 2020-21 25 ONLINE MODE Date 28 Certified that this certified course The attendance is taken with the is conducted in virtual mode (ON remarks P-Present and A-Absent LINE) because of the pandemic (Signature with Seal) Course Coordinator COVID-19 Remarks

College of Engineering Bhubaneswar

20	200		COLLEC	GE OF E	NGINE	ERING	внива	NESWA	COLLEGE OF ENGINEERING BHUBANESWAR (COEB)	٥			
			_	DEPARTN	NENT OF	MECHA	NICAL EN	DEPARTMENT OF MECHANICAL ENGINEERING	NG	ONL	NLINE MODE		
8	38545			S	TUDENT	ATTENE	STUDENT ATTENDANCE SHEET	Ė K	A	Academic	nic Year: 2020-	020-	
Progra	Programme: B Tech in ME	in MECHANICAL ENGINEERING		Semester: 3rd Sem	er:3rd	Sem							
Duration:	on: 40 600	50005											
Name	of the Course: Ad	Name of the Course: Advanced Welding Techniques			Remark	s of Cou	rse Coor	dinator (P-Present	Remarks of Course Coordinator (P-Present, A-Absent)	Ē		Remarks
:			Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	
SI No.	Reg. No.	Name of the Students							100000000000000000000000000000000000000	0.000			Cortified that this cortified course
28	1901219278 KA	1901219278 KALIPRASAD SATAPATHY	3	9	7	Δ	>	O	0	e	0	>	is conducted in virtual mode (ON-
29	1901219279 M.	1901219279 MANOJ KUMAR KHADANGA	V	0	0	Þ	3	3	0	0	3	2	LINE) because of the pandemic
30	1901219280 M	1901219280 MANOJ KUMAR MALICK	4	V	O	V	3	5	5	5	0	2	COVID-19.
31	1901219281 MD. ZAID	0. ZAID	J	7	1	J	3	4	A	D	3	2	
32	1901219282 PI	1901219282 PITABAS BEHERA	U	A	0	U	0	₹.	0	>	0	Ö	The attendance is taken with the
33	1901219283 PR	1901219283 PRATYUSH KUMAR DHAL	A	P	Ü	J	U	Ø	5	O	3	3	Absent for the students
34	1901219284 PR	1901219284 PRIYA KUMARI SINGH	ਹ	T	7	A	0	A	2	0	5	0	
35	1901219285 RA	1901219285 RAHUL KUMAR DIAN	O	3	O	Ø	O	0	T	Ü	5	0	
36	1901219286 RAJAT DIXIT	JAT DIXIT	C	0	b	0	U	9	0	0	0	0	
37	1901219287 RA	1901219287 RAJIB KUMAR NANDI	7	0	4	D	0	A	D	B	Ø	3	
38	1901219288 RA	1901219288 RAJIB KUMAR RAY	7	7	B	3	5	9	0	5	3-	70	, ,
39	1901219289 RA	1901219289 RAKESH RANJAN	3	7	D	Q	0	5	D	5	8	,	- Jak
40	1901219290 SA	1901219290 SAUDAMINI BEHERA	A	3	0	T	0	3	0	0	3	0 3	> 5000
41	1901219291 SA	1901219291 SAYED MOHAMMAD	P	7	5	a	D	4	0	0	0	0-	STI
42	1901219292 SH	1901219292 SHIBASHANKAR BIRUA	D	D	T	3	0	5	D	3	0	5	Course Coordinator
43	1901219293 SU	1901219293 SUBHAM KUMAR JENA	3	D	0	0	0	0	0	0	70	37	(Signature with Seal)
44	1901219294 SU	1901219294 SUBHRANSU SINGH	D	0	Q	Ü	0	-	0	7	0	>	No Section
45	1901219295 SU	1901219295 SUBRAT KUMAR GOPAL	T	B	D	7	A	B	7	P	97	P	SA
46	1901219296 SURENDRA SAW	RENDRA SAW	T	#	d	7	B	7	7	d	V	7	R Observes
									-				

PRINCIPAL College of Engineering Bhubaneswar



	-	DEPARTIN	NENT OF	MECHA	NICAL E	DEPARTMENT OF MECHANICAL ENGINEERING	NG	ONL	ONLINE MODE	-	
25		s I	TUDENT	ATTENE	STUDENT ATTENDANCE SHEET		D	Academic	Year: 2020-21	020-21	
Programme: B Jech in MECHANICAL ENGINEERING		Semest	Semester: 3rd Sem	Sem							
Duration: 40 MMYS											
Name of the Course: Advanced Welding Techniques			Remark	s of Cou	rse Coor	dinator (P-Presen	Remarks of Course Coordinator (P-Present, A-Absen	Ē.		Remarks
	Dąte	Date	Date	Date	Date.	Date	Date	Date	Date	Date	
SI No. Reg. No. Name of the Students	708	510	01.3	011	8	12 10	01/8/1	410	1011	200	Certified that this certified course
1 1901219145 AMBIKA PRASAD BARIK	D	D	À	D	D	D	3	7	0	D.	is conducted in virtual mode (ON-
2 1901219146 AMRIT KUMAR KAR	P	0	0	P	7	0	\$	0	3	D	LINE) because of the pandemic
3 1901219147 ARJEET MAJHEE	¥	D)	7	D	0	7	Ø	b	3	0	COVID-19.
4 1901219148 BIBEKANANDA JENA	B	V	D	O	٥	Ø.	7	P	0	0	
5 1901219149 BISHNU PRASAD MOHANTA	P	Ø	O	V	0	8	D)	0	9	à	The attendance is taken with the
6 1901219150 DEEPAN KUMAR BISWAL	0	V	Ø	Ø	Þ	A	D)	0	94	9	for the students.
7 1901219151 KHAGESWAR MALIK	0	D	0	0	7	0	D)	0	0	Q	
8 1901219152 LIPU PRADHAN	0	0	0	D	3	0	P	0	9	>	
9 1901219153 PRABHU SANKAR SINGH	9	D	9	D	D	8	U	0	0	9	
10 1901219154 SHYAM SUNDAR BHOI	P	0	D	0	0	B	D	9	d	Ö	
11 1901219155 SUVAM ASHIRBAD	Z	Ö	0	D	7	Z	D	0	0	0	
12 1901219262 ABHIJIT SETHY	V	O	P	O	3	B	D	U	7	P	
13 1901219263 ABHISHEK BEHERA	T	P	V	D	D	B	O	U	P	0	
14 1901219264 ABHISHEK KASHYAP	P	Þ	D	0	3	8	Ö	7	D	O	
15 1901219265 ABINASH PAHADASINGH	0	P	D	V	V	P	D	0	P	0	
16 1901219266 ARSHAD MOHANTY	A.	0	P	3	D	4	Ø	7	U	0	7
17 1901219267 AYUSH PARIDA	Ø	D	2	Ø	D	d	P	D	D	Q	ta
18 1901219268 BIDYABHUSAN KHATUA	P	Ø	D	3	Ø	D	P	D	B	D	
19 1901219269 BISHAL ROUT	P	Q	<i>D</i>	Ø	0	D	P	P	D	0	
20 1901219270 CHANDAN KUMAR	D	P	P	#	Ġ,	D	V	7	5	D	(Signature with Seal)
21 1901219271 DEBABRATA MISHRA	Z	P	P	P	Þ	D	P	D	A	4	O COLO
22 1901219272 DEBASIS MOHANTY	9	P	D	O	0	Y	0	9	8	P	No Car
23 1901219273 DEBASISH SAHU	T	O	D	P	'V	P	D	A	D	9	
24 1901219274 DIBYAJYOTI PALAI	P	P	T	D	V	3	0	P	O	5	SI
25 1901219275 FARHAN ALAM	P	G,	J'	*	उ	9	Ø,	B	9	9	TREE TO
26 1901219276 GOBINDA PRASAD	P	T	P	P	P	P	J	D	D	T	
27 1901219277 HEMANTA KUMAR	B	7	7	P	*	T	4	P	D	A	

PRINCIPAL College of Engineering Bhubaneswar



977.				D	EPARTN	NENT OF	MECHA	NICAL EN	DEPARTMENT OF MECHANICAL ENGINEERING	ត	ONLI	ONLINE MODE		
,		W.			sΑ	DD ON/	CERTIFIC	ADD ON/CERTIFICATE COURSE STUDENT ATTENDANCE SHEET	RSE RSE	A	Academic	Year: 2020-)20-	
Pro	gramm	e: B Tech įn	Programme: B, Tech in MECHANICAL ENGINEERING		Semester: 3rd Sem	er:3rd	Sem							
Dur	Duration:	40 61	50% 55											
Nai	ne of t	he Course:	Name of the Course: Advanced Welding Techniques	Car.		Remark	cs of Cou	rse Coor	Remarks of Course Coordinator (P-Present, A-Absen	-Present	, A-Absen	t)		Nemarks
				Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	
SI No.		Reg. No.	Name of the Students										b:	Certified that this certified course
28		1901219278	1901219278 KALIPRASAD SATAPATHY	B	7	D	P	0	P	0	0	D	7	is conducted in virtual mode (ON-
29	No.	1901219279	1901219279 MANOJ KUMAR KHADANGA	P	D	D	P	0	d	O	0	P	Þ	LINE) because of the pandemic
30		1901219280	1901219280 MANOJ KUMAR MALICK	V	P	D	P	D	P	0	7	D	D	COVID-19.
31		1901219281	1901219281 MD. ZAID	D	A	D	D	C	D	*	P	A	B	The attendance is taken with the
32		1901219282	1901219282 PITABAS BEHERA	O	7	Q.	b	7	D	Q	B	P	V	remarks P-Present and A-
33		1901219283	1901219283 PRATYUSH KUMAR DHAL	Ø	7	P	Ø	g	P	V	P	P	P	Absentfor the students.
34		1901219284	1901219284 PRIYA KUMARI SINGH	V	A	P	P	7	P	9	0	P	P	
35		1901219285	1901219285 RAHUL KUMAR DIAN	D	V	0	D	P	U	D	A	P	O	
36		1901219286	1901219286 RAJAT DIXIT	P	P	D	P	D	P	3	P	d	#,	
37		1901219287	1901219287 RAJIB KUMAR NANDI	Ø	Ö	P	0	0	P	V	V	D	P	
38		1901219288	1901219288 RAJIB KUMAR RAY	V	V	B	Þ	0	Å	P	ठ	D	P	
39		1901219289	1901219289 RAKESH RANJAN	P	8	D	Ø	Þ	P	F	D	Ö	4	250
40		1901219290	1901219290 SAUDAMINI BEHERA	Ğ	9	उ	D	D	D	9	Z	P	Ø	つきっと
41		1901219291	1901219291 SAYED MOHAMMAD	9	7	0	À	0	d,	V	G	Þ	A	Course Coordinator
42		1901219292	1901219292 SHIBASHANKAR BIRUA	Þ	P	P	7	ď	ď	छ	Þ	P	9	(Signature with Seal)
43		1901219293	1901219293 SUBHAM KUMAR JENA	V	P	P	D	D	P	Þ	Þ	B	P	Carre
44		901219294	1901219294 SUBHRANSU SINGH	P	B	V	P	D	b	Ø	P	D	P	100
45		1901219295	1901219295 SUBRAT KUMAR GOPAL	P	A	8	D	0	Z.	D	7,	A	A	
46		1901219296	1901219296 SURENDRA SAW	P	B	P	t	t	d	Þ	P	0	7	in the second

PRINCIPAL College of Engineering Bhubaneswar



PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024





Oprificate of Oempletion

has suc	of 	This is
has successfully completed the ADD-ON Course titled	Mechanical Engg.	This is to certify that Mr./Ms.
ADD-ON Course titled		AMBIKA PRASAD BARIK
Advanced	ter Third	BARIK
Advanced Welding Techniques	semester Third bearing registration number	
	1901219145	student of the Department

TRUE COPY

conducted at College of Engineering Bhubaneswar in the academic year_

2020-21

Shuntia

Course-Coordinator

Principal

PRINCIPAL College of Engineering Bhubangswar



PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024





Certificate of Completion

has succ	of 	This is to
has successfully completed the ADD-ON Course titled	Mechanical Engg.	This is to certify that Mr./Ms. AN
	semester Third	AMRIT KUMAR KAR
Advanced Welding Techniques	semester Third bearing registration number	, stu
	1901219146	student of the Department

conducted at College of Engineering Bhubaneswar in the academic year 2020-21

TRUE COPY

Course-Coordinator

Principal

PRINCIPAL College of Engineering Bhubaneswar.

they to

Shunta



PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024





Certificate of Completion

has succ	of _	This is to
essfully completed th	Mechanical Engg.	This is to certify that Mr./Ms.
has successfully completed the ADD-ON Course titled	Engg.	ARJEET MAJHEE
	semester	HEE
Advance	Third	
Advanced Welding Techniques	semester Third bearing registration number	
227	er 1901219147	, student of the Department

TRUE COPY

Shuta

conducted at College of Engineering Bhubaneswar in the academic year_

2020-21

Course-Coordinator

Principal

X

PRINCIPAL PRINCIPAL College of Engineering Bhusaness

Ansak De



PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024





Octificate of Completion

has succe	of	This is to
ssfully completed the	Mechanical Engg.	This is to certify that Mr./Ms.
has successfully completed the ADD-ON Course titled	Engg.	BIBEKANANDA JENA
	semester	DA JEN
Advance	Third	Α
Advanced Welding Techniques	semester <u>Third</u> bearing registration number	, stu
	1901219148	student of the Department

TRUE COPY

conducted at College of Engineering Bhubaneswar in the academic year_

2020-21

they be

Shutia Course-Coordinate

Course-Coordinator

8

Principal

PRINCIPAL College of Engineering Bhubaneswar.



PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024





Certificate of Completion

has success	of	This is to cer
has successfully completed the ADD-ON Course titled	Mechanical Engg.	This is to certify that Mr./MsBISHNU PRASAD MOHANTA
	_ semester	SAD MO
Advancec	Third	TNAHC
Advanced Welding Techniq	semester Third bearing registration	
Techniques	istration num	
ις.	ıber <u>19</u>	_, student
	1901219149	student of the Department
		tment

TRUE COPY

Shuta

conducted at College of Engineering Bhubaneswar in the academic year___

2020-21

Course-Coordinator

Principal

XE.

PRINCIPAL PRINCIPAL College of Engineering Bhubaneswal