Yukesh Karki Aerospace Engineer

≥ yukeshkarki34@gmail.com

+977-9862164300

Sunsari, Nepal

■ Nepali

in https://www.linkedin.com/in/yukesh-karki-2b05bb1a4/

Education

2018 - 2023

Bachelors in Aerospace Engineering

Lalitpur, Nepal

IOE Pulchowk, Tribhuvan University

Percentage: 76.28%

Relevant Courses: Fluid dynamics, Aerodynamics, Numerical methods, Finite element methods, Computational fluid dynamics, Compressible aerodynamics, Hypersonics, Fundamentals of thermodynamics and heat transfer, Applied thermodynamics and heat

transfer, Aircraft Propulsion

Research Experience

2024/06 - Present Birmingham, UK

Research Intern

BioFSILab

Research Topic: Wake Dynamics of a Flexible Flapping Airfoil Supervisor: Dr. Chandan Bose, University of Birmingham

2024/03 - 2024/06

CFD Research Intern

FOSSEE, IIT Bombay, Semester Long Internship [2] Research Topic: Aerodynamics of Bristled Wings

Supervisor: Dr. Chandan Bose, University of Birmingham

2022/06 - 2023/03

Lalitpur, Nepal

Bachelor Thesis

IOE Pulchowk, TU Z

Title: Fabrication of particle image velocimetry setup for experimentation at low Reynolds

- This project work was completed in partial fulfillment of the requirement for Bachelors degree in Aerospace Engineering.
- Designed a Particle Image Velocimetry (PIV) setup using CATIA, ensuring it was welldesigned and functional through thorough analysis.
- Manufactured the PIV setup using various fabrication techniques, resulting in a fully operational system.
- Conducted a comparative analysis with results obtained from numerical simulation. Supervisors: Asst. Prof. Neeraj Adhikari and Asst. Prof. Kamal Darlami

Skills: CATIA, SolidWorks, ANSYS Fluent, Arduino, Python

2022/10 - 2022/12

Kathmandu, Nepal

Research Intern

Antarikchya Pratisthan Nepal

- Conducted feasibility analysis on design and development of low cost Thermal Vacuum Chamber for CubeSat testing in Nepal.
- Performed preliminary design and analysis of thermal vacuum chamber for testing of 6U CubeSats.
- Prepared detailed report and delivered presentations on research findings.
- Poster presentation on research finindings on International Space Day held at Nepal Academy of Science and Technology (NAST).

Skills: CATIA, SolidWorks, ANSYS, Python

Lalitpur, Nepal

Other Academic Projects/Experience

IOE Pulchowk, TU

- Design of UAV and 40 seater Jet Aircraft (Subject: Flight Dynamics and Aricraft Preliminary Design)
- Effect of flow pattern in four diffusers with an increasing divergence angle (Subject: Aircraft Propulsion)

Volunteer and Work Experience

2023/08 - 2024/03	Design and Simulation Engineer
Lalitpur, Nepal	Voyager Mayeen
	 Responsible for research and design of aerospace propulsion systems.
	• Responsible for conducting CFD simulations and structural & thermal analyses to enhance
	the reliability and efficiency of aerospace components
	 Responsible for providing guidance and supervision to interns.
	Skills: CATIA, SolidWorks, Python, OpenFOAM, ANSYS
2022/04 - 2022/12	Volunteer and Member of Students' Committee
Lalitpur, Nepal	International Conference on Vibration Engineering and Technology of Machinery (VETOMAC)
	 Led committee members and coordinated to organize activities for student attendees, such as workshops, poster sessions and social events.
	 Actively participated as a conference volunteer, facilitating session logistics, coordinating with presenters, and overseeing conference sessions.
2020	Volunteer
Lalipur, Nepal	MechTRIX (National Mechanical and Aerospace Engineering Expo)
	 Assisted the organizing committee in successfully organizing a water rocket competition for secondary-level students

Skills

CAD/Analysis CATIA, SolidWorks, OpenFOAM, ANSYS	Programming C, Python
Miscellaneous Linux, LATEX (Overleaf), Microsoft Office, Adobe Creative Cloud	Soft Skills Time Management, Teamwork, Problem-solving, Documentation
Languages	
Nepali Nativa Profision av	English Professional Profesionary
Native Proficiency Declaration	Professional Proficiency

I declare you that the information given above is true to the best of my knowledge and belief.

Issue No. 42





TRIBHUVAN UNIVERSITY

OFFICE OF THE CONTROLLER OF EXAMINATIONS

KATHMANDU

NEPAL

ACADEMIC TRANSCRIPT

Name of Student: Yukesh Karki

Registration No : 3-2-23-512-2018

Institute : Engineering

Campus : Pulchowk Campus

Examination : Bachelor's Degree in Aerospace Engineering

Course Duration: 4 Years 1 6 AUG 2023

T. U. Regd. No. :- 3-2-23-512-2018

	Ist Year Ist Part								2											
cyre :-	Subjects anneared of John Subjects	Eug.			-		Year	Exam attended Year and Roll No.	oll No.		Exam attended Year and Roll No.		Exam :	Exam attended Year and Roll No.		Exam attended Year and Roll No.		Exam attended Year and Roll No.	affend d Roll	bed No.
		Ful	Full Marks	ks	Pass	Pass Marks	-	2019 and 12448	12448	2022	2022 and 14307	_			_					
	Day I The Control of						W	Marks Secured	panna	Mar	Marks Secured	pa	Marks	Marks Secured	Z	Marks Secured	pau	Marks Secured	Secur	pa
		Int.	Ext. Total		Int. E	Ext. Total	al Int.	Ext.	Total	Int.	Ext. T	Total 1	Int. E	Ext. Total	al Int.	Ext.	Total	Int. E	Ext. 7	Total
CE401	Applied Mechanics	20	80	100	8	32 40	20	33	53			T	\vdash	-				T	1	T
EE401	Basic Electrical Engineering	20	08	100	8	32 40	12	53	9			T	-	-	-		T	+	T	T
EE401		25		25	10	- 10	22	٠	22			-	-	\vdash	-			+	1	T
ME401		09	40	100	24 1	16 40	20	31	81			T	_	F	H			-	T	T
ME403	100	10	ı	10	4	4	6		6				r	-	H			T		
ME403		40	,	40	16	- 16	38		38				-	-	-			T		
SH401	Engineering Mathematics I	20	08	100	8	32 40	20	55	75						-					
SH402	Engineering Physics	20	08	100	8	32 40				∞	32	40		-	-					
SH402	Engineering Physics (Practical)	20	30	20	8	12 20	18	23	41						-	-			,	
	Ist Year IInd Part						-						1							
	Subject/s appeared						Yea	Exam attended Year and Roll No.	ended Roll No	_	Exam attended Year and Roll No.	ded II No.	Ехан Үеаг а	Exam attended Year and Roll No.		Exam attended Year and Roll No.	toll No.	Exa	Exam attended	Exam attended Year and Roll No.
	in the examination	Fu	Full Marks	-ks	Pass	Pass Marks	-	2019 and 11898	11898		2021 and 10462	0462			-					
							2	Marks Secured	ecured	M	Marks Secured	nred	Mar	Marks Secured	Po	Marks Secured	panna	Ma	rks Se	Marks Secured
		Int.	Ext. Total		Int. F	Ext. Total	tal Int.	Ext.	t. Total	al Int.	Ext.	Total	Int.	Ext. T	Total I	Int. Ext.	. Total	I Int.	Ext.	. Total
CT452	Computer Programming	20	08	100	8	32 40	0 18	64	82											_
CT452	Computer Programming (Practical)	20	•	20	20	- 20	0 48	-	48				1						_	-
EX451	Basic Electronics Engineering	20	80	100	8	32 40	0 20	48	89	2021					143		_		_	_
EX451	Basic Electronics Engineering (Practical)	25	,	25	10	- 10	0 25	-	25	_					17.		-	_	_	-
ME451	Engineering Drawing II (Practical)	09	40	100	24	16 40	0			57	28	82				_	_	_	_	
ME452	Fundamental of Thermodynamics & Heat Transfer	20	80	100	8	32 40	0 11	49	09									_		-
ME452	Fundamental of Thermodynamics & Heat Transfer (Practical)	25		25	10	- 10	0 20	-	20									_		H
SH451	Engineering Mathematics II	20	08	100	8	32 40	0 20	33	53								_	_	_	-
SH453	Engineering Chemistry	20	08	100	8	32 40	0 19	20	69									_		
SH453	Engineering Chemistry (Practical)	20	30	20	∞	12 20	81 (27	45						_					_
Total				1375		250	0		979											
															,					

Menie Blant &

T. U. Regd. No. :- 3-2-23-512-2018

THE PART OF THE PA																		
Subject/s appeared a straight of the straight						¥	Exam ear an	Exam attended Year and Roll No.	_	Exam attended Year and Roll No.		Exam attended Year and Roll No.		Exam attended Year and Roll No.	ded II No.	Exam attended Year and Roll No.	Exam attended ear and Roll N	led No.
		Full Marks	-ks	Pass	Pass Marks	-	020 a	2020 and 25848										
Services of Exp							Marks	Marks Secured	X	Marks Secured	Mar	Marks Secured	P	Marks Secured	pau	Mark	Marks Secured	pau
Asinmair	=	Ext.	Total	Int.	Ext. Total		Int. E	Ext. Total	I Int.	Ext. Total	I Int.	Ext. T	Total	Int. Ext.	Total	Int	Ext.	Total
ASS01 Fundamentals of Aerospace Engineering	20	80	100	œ	32 4	40	41	54 68										
ASS02 Fluid Dynamics	20	80	100	æ	32 4	40	14	49 63					-					
ASS02 Fluid Dynamics (Practical)	25	1	25	10		10 2	21	- 21					H					
ASS03 Computer Aided Design & Manufacturing	20	80	100	æ	32 4	40	91	66 82					H				T	
ASS03 Computer Aided Design & Manufacturing (Practical)	25	ı	25	9	-	10 2	21	- 21					-					
EES04 Control System	20	80	100	∞	32 4	40	15	43 58				H	H			T		
EES04 Control System (Practical)	25	,	25	10		10 2	20	- 20				_	-					
MES02 Engineering Mechanics	20	80	100	8	32 4	40	15 4	41 56	L			ŀ	H			T		
SH501 Engineering Mathematics III	20	80	100	8	32 4	40 1	15 6	60 75					+			T		
IInd Year IInd Part										-					1		1	
Subject/s appeared						- X	Exam:	Exam attended Year and Roll No.	-	Exam attended Year and Roll No.	Exai	Exam attended Year and Roll No.		Exam attended Year and Roll No.	_	Exam attended Year and Roll No.	Exam attended ear and Roll N	No.
in the examination	Ful	Full Marks	-ks	Pass	Pass Marks	_	021 ar	2021 and 71248					_					
						_	Marks	Marks Secured	Ma	Marks Secured	Mar	Marks Secured		Marks Secured	pau	Mark	Marks Secured	pa
	Int.	Ext.	Total	Int.	Ext. Total		Int. E	Ext. Total	I Int.	Ext. Total	Int.	Ext. To	Total In	Int. Ext.	Total	Int.	Ext.	Total
ASSS1 Aerospace Materials	20	80	100	8	32 4	40 2	20 4	46 66					_				T	
ASSS1 Aerospace Materials (Practical)	25	,	25	10	-	10 1	16	- 16				_	-					
ASSS2 Aerodynamics	20	80	100	8	32 4	40 1	18 6	82 09								T		
	25	i	25	10	-	10 2	23	- 23						ı				
ASSS3 Applied Thermodynamics & Heat Transfer	20	80	100	8	32 4	40 1	17 4	47 64										
ASS53 Applied Thermodynamics & Heat Transfer (Practical)	25	,	25	10	-	10 2	24	- 24					-			T		
MESS2 Strength of Materials	20	80	100	8	32 4	40 1	17 4	40 57					-					
MESS2 Strength of Materials (Practical)	25		25	10	-	10 2	23	- 23					H					
MESS6 Theory of Mechanism & Machine I	20	80	100	8	32 4	40 1	18 4	42 60										
SH552 Probability & Statistics	20	80	100	8	32 4	40 2	20 5	54 74					H					
Total		· ·	1375		ŵ	920		949					1					
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			•		מנטט טווע ט	000		3	See J	sensy 13R	May		6					

T. U. Regd. No. :- 3-2-23-512-2018

Name	Name :- Yukesh Karki											T. U. I	legd.	No.	T. U. Regd. No. :- 3-2-23-512-2018	23-5	12-2	018			
	Illrd Year Ist Part	To V								ı									1		
	Subject/s appeared	Salar Salar Singer Sitt Con State Singer Sitt Con University Con State Singer Sitt Con State Sit	6400	7	-		Doce Marke		Exam attended Year and Roll No 2021 and 39148	Exam attended Year and Roll No. 2021 and 39148	Year	Exam aftended Year and Roll No.	l No.	Exan Year a	Exam attended Year and Roll No.		Exam ear an	Exam attended Year and Roll No.	-	Ехаш:	Exam attended Year and Roll No.
	in the examination	Se Controller of Examin		Mark	-	455	ST IN	_	Marks Secured	panna	M	Marks Secured	pa	Mari	Marks Secured	+	Marks	Marks Secured	-	Varks	Marks Secured
		"Out Kathmandu	Int.	Ext. T	Total Int.	t. Ext.	t. Total	d Int.	Ext.	Total	Int.	Ext.	Total	Int.	Ext. Total		Int. E	Ext. Total	tal Int.		Ext. Total
AS601	Avionics		20	80	100	32	40	12	44	99						-	_	_		-	-
109SV	Avionics (Practical)		25	•	25 10	0	10	25	,	25						_	-		-		-
AS602	Machine Design		20	80	100	32	40	11	25	69						_		-			-
AS602	Machine Design (Practical)		25		25 10	- 0	10	23	1	23								_	-	-	-
AS603	Continuum Mechanics		20	80	100 8	32	40	19	99	84								_	-	-	-
AS603	Continuum Mechanics (Practical)		25	-	25 10	0	10	24	•	24									-	-	-
AS604	Aircraft Propulsion		20	80	100 8	32	40	20	20	70									-		-
AS604	Aircraft Propulsion (Practical)		25		25 1	10 -	10	22		22						-		-	-	-	-
AS605	Fault Monitoring and Diagnosis		20	80	100 8	32	40	18	9	83					_		-		-	-	+
AS605	Fault Monitoring and Diagnosis (Practical)		25	,	25 1	10 -	10	22	•	22						-	-	-	-	-	+
SH603	Numerical Methods		20	80	100 8	32	2 40	20	44	64						-	-	-		_	
SH603	Numerical Methods (Practical)		20	,	50 2	20 -	20	20	1	20						\neg		-	-	_	
	IIIrd Year IInd Part	t						-													
	Subject/s appeared				-			Year	Exam attended ear and Roll N	Exam attended Year and Roll No.		Exam attended Year and Roll No.	ded II No.	Exar Year	Exam attended Year and Roll No.		Exam ear ar	Exam attended Year and Roll No.		Exam ear an	Exam aftended Year and Roll No.
	in the examination		Ful	Full Marks		Pass 1	Pass Marks		2022 and 21298	21298						-			-		
					-			<u> </u>	Marks Secured	cared	W	Marks Secured	red	Mar	Marks Secured	P	Mark			Marks	5
			Int.	Ext. T	Total Ir	Int. Ext.	t. Total	al Int.	Ext.	Total	I Int.	Ext.	Total	Int.	Ext. To	Total	Int. E	Ext To	Total I	Int.	Ext. Total
AS651	Aircraft Manufacturing Process		20	08	100	8 32	2 40	16	69	82					-	-	-		-	+	+
AS651	Aircraft Manufacturing Process (Practical)		90		50 2	20	20	-	1	48								-	-	+	+
AS652	Aircraft Maintenance Engineering		20	08	100	8 32	-	19	48	19									-	-	
AS652	Aircraft Maintenance Engineering (Practical)	cal)	20	,	50 2	- 02	20	34		34								_		-	
AS653	Aircraft Systems		20	80	100	8 32	2 40	10	29	69							-		-	-	
AS653	Aircraft Systems (Practical)		25		25 1	10	10	17		17								_			-
AS654	Flight Dynamics		20	08	100	8 32	2 40	17	51	89							_				
AS654	Flight Dynamics (Practical)		25		25 1	10	10	11	•	17			2					-	-		
AS655	Unmanned Air Vehicle Synthesis		20	80	100	8 32	2 40	11	89	85								-			
AS655	Unmanned Air Vehicle Synthesis (Practical)	(r	25		25 1	10	- 10	24	i	24											
ME656	Finite Element Method	300	20	08	100	8	32 40	16	20	99									-		
ME656	Finite Element Method (Practical)		25		25 1	10	. 10	21	,	21					_		-				
Total		leri.			1575		630	0		1193	-										
		100 to 10				9	Al 1G	2023	_	,		11.18	and an	#		0					

Money Blant

T. U. Regd. No. :- 3-2-23-512-2018

	IVth Year Ist Part																			
	Subject/s appeared confluent University in the examination	Fu	Full Marks		Pass	Pass Marks	_	Exam attended Year and Roll No. 2022 and 52598	oll No. 52598	Exar	Exam attended Year and Roll No.	-	Exam a Year and	Exam attended Year and Roll No.		Exam attended Year and Roll No.	nded oll No.	Exan Year a	Exam attended Year and Roll No.	l No.
	Controller of Co						L	Marks Secured	paine	Mar	Marks Secured	pa	Marks	Marks Secured	Ma	Marks Secured	nred	Mark	Marks Secured	pa.
	The Value	Int.	Ext. T	Total Ir	Int. E	Ext. Total	al Int.	Ext.	Total	Int.	Ext. 7	Total	Int. E	Ext. Total	I Int.	Ext.	Total	Int.	Ext. T	Total
AS701	Aircraft Preliminary Design	20	80	100	8 3	32 40	17	1	88				-	-	L				T	T
AS701	Aircraft Preliminary Design (Practical)	25		25 1	10	- 10	19	,	19				\vdash	_				T	+	T
AS702	Computational Fluid Dynamics	20	80	100	8	32 40	17	19	84		T	<u> </u>	+	-						T
AS702	Computational Fluid Dynamics (Practical)	25		25 1	10	- 10	23		23				\vdash	-				T	+	T
AS703	Human Factors in Aviation	20	80	100	8	32 40	18	19	85				-	-				t	+	T
AS703	Human Factors in Aviation (Practical)	25	e	25 1	10	- 10	24	•	24				-	_				-	-	T
AS704	Aircraft Structures	20	80	100	8	32 40	17	19	78			-	-	_				+	+	T
AS704	Aircraft Structures (Practical)	25	,	25 1	10	- 10	24	•	24			-	-					-	-	T
AS705	Instrumentation & Sensors	20	80	100	8	32 40	19	69	88			-	-				T	\vdash	+	Τ
AS705	Instrumentation & Sensors (Practical)	25	,	25 1	10	10	23	•	23			-	F	_		T	T	H	+	T
AS707	Project I (Practical)	20	1	50 2	20 -	- 20	47		47			-	-			T		+	+	T
AS72501	Compressible Aerodynamics (Elective I)	20	80	100	8 32	2 40	17	89	82			-	-				-	-	-	Т
AS72501	Compressible Aerodynamics (Elective I) (Practical)	25		25 1	10	- 10	24	,	24				_				-	-	+	Γ
	IVth Year IInd Part																	1	1	T
	Subject/s anneared						Exa	Exam attended Year and Roll No.	nded oll No.	Exan Year a	Exam attended Year and Roll No.		Exam attended Year and Roll No.	Roll No.	Exan Year	Exam attended Year and Roll No.		Exam	Exam attended Year and Roll No.	P
	in the examination	Full	Full Marks	-	Pass	Pass Marks		2023 and 41398	1398			_								
								Marks Secured	nred	Mark	Marks Secured		Marks Secured	panna	Mar	Marks Secured	red	Marks	Marks Secured	P
		Int.	Ext. T	Total In	Int. Ex	Ext. Total	al Int.	Ext.	Total	Int.	Ext. T	Total I	Int. Ext.	. Total	Int	Ext.	Total	Int. E	Ext. To	Total
AS751	Internship (Practical)	100	-	100	40	- 40	94		94									-	-	T
AS752	Aviation Professional Practices	10	40	50 4	4 16	6 20	6	59	38									-	-	Γ
AS753	Project II (Practical)	20	50 1	100	20 20	0 40	46	46	92										H	Γ
AS76501	Hypersonics (Elective II)	20	80	100	8 32	2 40	14	29	81				H	L				H	-	T
AS76501	Hypersonics (Elective II) (Practical)	25	1	25 1	10	- 10	23	•	23				-	L				H	-	T
AS78501	Advanced Propulsion Systems (Elective III)	20	80 1	100	3	32 40	15	24	69									H	-	T
AS78501	Advanced Propulsion Systems (Elective III) (Practical)	22	•		10	- 10	24	ï	24											
Total			1	1300		220			1113											T
	2																			1

3 2023

Hooje Blant a

Based on the weightages assigned to each year scores the aggregate full marks, marks secured and percentage are given below.

Year	-	П	E	N	Total
Weightage %	20	20	30	30	100
Full Marks	275	275	472.5	390	1412.5
Marks Secured	195.8	189.8	357.9	333.9	1077.4



T. U. Regd. No. :- 3-2-23-512-2018

Passed Examination of 2079 (2023 First Division 76.28 Passed Division Percentage

Prepared by Menay

Date of Issue

(Howled by

CONTROLLER OF EXAMINATIONS

Grading system of marks secured in the examination:

- 80% and above in the aggregate. First Division Distinction

- 65% and above in the aggregate.

50% and above in the aggregate

Second Division

To pass the examination at least 40% of marks must be secured in the internal and external examinations as well as in the theory and practical examinations of each paper separately.