


CERTIFICATE

This thesis titled “ROLE OF YOGA ON THE PSYCHOLOGICAL PROFILE OF EMERGING ADULTS STUDYING ENGINEERING” is submitted to the Division of Yoga and Physical Sciences, Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA), University of Bengaluru, for the award of the Degree of Doctor of Philosophy by VENKATESAN R.

I certify that this is the result of bona-fide research work carried out by him under my supervision and guidance at Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA), University of Bengaluru, during the period from 2013 to 2022.

I further certify that this research work has not formed the basis for award of any Degree or Diploma, in this or any other University.

This thesis is fit for submission to the Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA), University of Bengaluru for the award of the Degree of Doctor of Philosophy



DATE: 09-10-2022

DR. JUDU V ILAVARASU

BANGALURU

GUIDE

DECLARATION

I, hereby declare that this study was conducted by me at Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA), Bengaluru, under the guidance of Dr. Judu V Ilavarasu, Associate Professor, Division of Yoga and Physical Sciences, S-VYASA University, Bengaluru.

I also declare that the subject matter of my thesis entitled ROLE OF YOGA ON THE PSYCHOLOGICAL PROFILE OF EMERGING ADULTS STUDYING ENGINEERING has not previously formed the basis of the award of any degree, diploma, associateship, fellowship or similar titles.



Date: 09-October-2022

VENKATESAN. R

Place: Bengaluru

ACKNOWLEDGMENT

I offer my deepest gratitude to my mother **Mrs. Navaneetham** and my father **Mr. Raji** whose unconditional love and support made me who I am, and their sacrifices, love and support enabled me, and continue to motivate me throughout my life.

My heartfelt thanks to my Guru **Yogiraj Vethathiri Maharishi**, founder of Simplified *Kuṇḍalinī* Yoga, for imparting priceless spiritual wisdom and blessings with compassion.

I bow to **The Almighty** for allowing me to pursue this research study and for constantly showering me with grace.

I am extremely thankful to Guruji **Dr. H.R. Nagendra** and Didi **Dr. R. Nagarathna** for their inspiration, patience and compassion.

I sincerely express my deepest gratitude to my Research Supervisor **Dr. Judu Ilavarasau** for his immense support and guidance.

I extend my thank to **Dr. Sanjib Kumar Patra** and **Dr. S.K. Rajesh** for their support and guidance.

I express my sincere thanks to Sr. Prof. **Mr. Sathyamurthy** and **Mrs. Meena Sathyamurthy** for their love and support.

I extend my profound gratitude to **Dr. Kovaichelvan** for introducing me Dr. Mahalingam College for Engineering and Technology, which was the source of my research participants.

I am grateful to **Dr. A. Srinivasan**, P.S. Coordinator, Dr. MCET for his support and cooperation during the intervention and data collection.

I extend my thanks to **Mr. Kethara Eshwar** and **Mrs. N. Rajeshwari**, Instructors, Students Wellness, Dr. MCET for their support and cooperation during the intervention and data

collection.

I deeply thank **Dr. MCET Management, Staff** and **my dear Students** without their active cooperation and support, this would not have happened.

I profusely thank **S-VYASA University** for having given me an opportunity to pursue man making education and for offering this wisdom base to millions worldwide.

My thanks to **PhD Office team** for being with me through this long journey and for all the support extended.

My sincere thanks to **S-VYASA management, staff** and **all other members** for all your interactions and support.

I extend my thanks to **Dr. Sheshagiri Pai** for imparting knowledge about using diagnostic medical instruments related to my research.

My heartfelt thanks to my friends **Dr. B.V. Deepak** and **Mr. T. Venkatesh** for their advice and moral support in completion of my research study.

I express my sincere thanks to **Mrs. Navya Y. N**, Research Scholar, Bharathiyar University, for her timely contribution and moral support in the completion of this research study.

My deep gratitude to **Mr. N. S. Nagaraj**, Yoga Teacher, who was constantly encouraging me from the begging to complete my research study.

Finally, yet importantly, I express my sincere thanks to **all my friends** and **well-wishers** for their moral support and invaluable contribution to completing my research study.

Date: 09-Oct-2022

VENKATESAN. R

Place: Bengaluru

**STANDARD INTERNATIONAL TRANSLITERATION CODE
USED TO TRANSLITERATE SANSKRIT WORDS**

a	=	अ	ña	=	ड	pa	=	प
ā	=	आ	ca	=	च	pha	=	फ
i	=	इ	cha	=	छ	ba	=	ब
ī	=	ई	ja	=	ज	bha	=	भ
u	=	उ	jha	=	झ	ma	=	म
ū	=	ऊ	ñ	=	ञ	ya	=	य
ṛ	=	ऋ	ṭa	=	ट	ra	=	र
ṝ	=	ॠ	ṭha	=	ठ	la	=	ल
e	=	ए	ḍa	=	ड	va	=	व
ai	=	ऐ	ḍha	=	ढ	śa	=	श
o	=	ओ	ṇa	=	ण	ṣa	=	ष
au	=	औ	ta	=	त	sa	=	स
m̐	=	अं	tha	=	थ	ha	=	ह
ḥ	=	अः	da	=	द	kṣa	=	क्ष
ka	=	क	dha	=	ध	tra	=	त्र
kha	=	ख	na	=	न	jña	=	ज्ञ
ga	=	ग						
gha	=	घ						

**TRANSLITERATION CODE
USED TO TRANSLITERATE TAMIL WORDS**

Vowels

அ	ஆ	இ	ஈ	உ	ஊ	எ	ஏ	ஐ	ஓ	ஔ	ஔ	ஔ	ஃ
A	ā	i	ī	u	ū	e	Ēme	ai	o	ō	au	h	

Consonants

க	ங	ச	ஞ	ட	ண	த	ந	ப	ம	ய	ர்	ல்	வ்	ழ்	ள்	ற்	ன்
K	ñ	c	ñ	ṭ	ṇ	t	n	p	m	y	r	l	v	ḷ	ḷ	r	ṇ

Vowels And Consonants

க	ங	ச	ஞ	ட	ண	த	ந	ப	ம	ய	ர்	ல்	வ்	ழ்	ள்	ற்	ன்
Ka	ña	ca	ña	ṭa	ṇa	ta	na	pa	ma	ya	ra	la	va	ḷa	ḷa	ra	ṇa

Grantha Consonants

ஸ	ஜ	ஷ	ஸ்	ஹ	க்ஷ
ś	j	ṣ	s	h	kṣ

Vowels And Consonants

ஸ	ஜ	ஷ	ஸ்	ஹ	க்ஷ
śa	ja	ṣa	sa	ha	kṣa

LIST OF ABBREVIATIONS

SKY	Simplified <i>Kuṇḍalīnī</i> Yoga
RAAS	Revised Adult Attachment Scale
EIAT	Engineering Implicit Association Test
PCS	Perceived Competence Scale
PASS	Perceived Parental Autonomy Support Scale
IDEA	Inventory of the Dimensions of Emerging Adulthood
MAAS	Mindful Attention Awareness Scale
EEG	Electroencephalogram
ESD	Education for Sustainable Development
SDT	Self Determination Theory
LALQ	Learner Awareness Levels Questionnaire
CM	Cyclic Meditation
EA	Emerging Adulthood
MoA	Markers of Adulthood
SSDP	Siddiqui Shah Depression Scale
PBFS	Problem Behavior Frequency Scale
PWDS	Psychological Well-Being and Distress Screener
PCS-YSR	Psychological Control Scale of the Youth the Self-Report
PANAS	Positive and Negative Affect Schedule
PASS-E	Perceived Autonomy Support Scale for employees
SBL	Simulation-based Learning
SSE	Scale for School Engagement

ASRQ	Academic Self-Regulation Questionnaire
PSRI	Personal and Social Responsibility Inventory
GCOS	General Causality Orientations Scale
LCQ	Learning Climate Questionnaire
LSRQ	Learning Self-Regulation Questionnaire
PCS	Perceived Competence Scale
CTT	Critical Thinking Test
NFC	Need for Cognition
PATL	Positive Attitude Towards Literacy
MCSD	Marlowe Crowne Social Desirability
MEMT	Mastering Emotions Technique
POMS	Profile of Mood States
fMRI	Functional Magnetic Resonance Imaging
ERQ	Emotion Regulation Questionnaire
K-MAAS	Korean version of the Mindful Attention Awareness Scale
AIMS	Absorption in Music Scale
FAD+	Free Will and Determinism Plus
ZTPI	Zimbardo Time Perspective Inventory
DASS	Depression Anxiety Stress Scales
STAI	State-Trait Anxiety Inventory
FAD	Free Will and Determinism Scale
REI	Rational–Experiential Inventory
GIN	The 'Gita' Inventory of Personality

SEQ	Self Esteem Questionnaire
SKYT	Simplified <i>Kuṇḍalinī</i> Yoga Training
YPT	Yoga and <i>Prāṇāyāmā</i> Training
NH	Null Hypothesis
MCET	Dr. Mahalingam College of Engineering and Technology
PSW	Promotion of the f Students Wellness
SFW	Sports for Wellness
KKY	Kaya Kalpa Yoga
GHQ	General Health Questionnaire
IE	Identity Exploration
EP	Experimentation/Possibilities
NI	Negativity/Instability
OF	Other-Focused
SF	Self-Focused
FIB	Feeling In-Between
SDS	Social Desirability Scale
Gu	<i>Guṇa</i>
STEM	Science, Technology, Engineering, and Mathematics
ACE	Adverse Childhood Experiences
AICTE	All India Council for Technical Education

ABSTRACT

BACKGROUND

India is the world's largest engineer-producing country. Every year, around 1.5 million students in India get enrolled in engineering programs, 7.7 lakh students complete their under graduation, and 3.7 lakh students get placement. Enrollment in engineering colleges, however, has been steadily declining at a rate of roughly 4.9 per cent each year during the last five years. Similarly, the number of engineering colleges has decreased by roughly 2.15 per cent per year over the last five years. This alarming decline in the intake and institutional strength suggest that there is a need to look at the contributing factors that may be influencing this observation. The contributing factors can be attributed to both external and internal causes. This is a threat to the sustainable growth of technical education in India.

In India, every year there is a 3.4 per cent increase in placements for engineers in the last five years. However, employability skills/competency deteriorated to a great extent and in a report by industry bodies, only 20%-30% of engineering graduates are employable. Education in India needs to be more skill-oriented—both in terms of life skills as well as livelihood skills. This being an important issue, we attempted to study the psychological profiles of engineering students regarding their engineering career choice. Apart from that, the parental role in shaping children's psychological makeup is crucial. In India especially, the majority of emerging adults depend on their parents for their college education. Hence, we can expect a more involved role of parents in children's education and career choices.

From the literature review, we observed that the inherent attitude towards engineering

and other social determinants, like parents' influence, etc., contribute to the engineering career choice of emerging adults. However, we did not find any studies in the Indian context using implicit measures to evaluate engineering career choices. Hence, this study attempts to study the implicit attitude of engineering students towards joining engineering.

Nowadays some school managements in India are introducing yoga to their students. As yoga grooms overall personality, yoga practice may influence the students' choice of engineering. Hence, we conducted another study to find whether yoga practice influences engineering choices. Another three studies aimed to measure psychoth variables before and after the intervention of Simplified *Kuṇḍalinī* Yoga (SKY).

These studies will provide insight into the interacting factors influencing the choice of joining engineering and further help in developing sustainable methods to foster higher quality technical education in India.

AIMS AND OBJECTIVES

The present study is aimed at assessing the effect of yoga on psychological factors related to emerging adults and finding its implication on implicit and explicit attitudes towards technical education.

The objectives of the current research are the following:

- To study the effect of yoga on psychophysiological variables, among yoga and sports groups.
- To study the effect of yoga on internal attributes like self-concept, personality, and dimensions of emerging adults, among yoga and sports groups.
- To study how internal attributes, influence the inherent interest of engineering

students towards engineering courses, among yoga and sports groups.

METHODS

Participants

For study one, 238 participants; for study two, 314 participants; for study three, 86 participants, for study four, 407 participants and study five, 389 participants were recruited from Dr Mahalingam College of Engineering and Technology and their ages ranged from 18 to 19 years. They all belonged to the same academic year.

Design

Study 1 and study 2 are survey designs. Study 3, study 4 and study 5 are pre-post designs.

Assessments

The selected psychological variables were assessed using Inquisit software. The test consists of a demographic profile and other psychological variables. Psychological variables measured were the Revised Adult Attachment Scale-Close Relationships Version (RAAS), the Marlowe-Crowne Social Desirability Scale-13-Item Short Form, the 12 items General Health Questionnaire, the Engineering Implicit Association Test (EIAT), the Reasons for Learning scale, the Perceived Competence Scale (PCS), the Rosenberg Self-Esteem Scale, the Perceived Parental Autonomy Support Scale (PPASS), Freewill and determination scale, Inventory of the Dimensions of Emerging Adulthood (The IDEA), the Mindful Attention Awareness Scale (MAAS), the Feeling Thermometer, and 'G' Inventory of Personality. Physiological variable measured was Electroencephalogram (EEG).

Intervention

Yoga group, students underwent three days (21 hours) orientation programme at the beginning of the semester in which they learnt Simplified *Kuṇḍalinī* Yoga and Sports group students underwent one and half a day (12 hours) orientation program at the beginning of the semester in which they learnt general sports. Both Yoga group and Sports group students had 30 hours (20 weeks x 1.30 hours/week) of follow-up classes after the orientation programme.

RESULTS

Study 1: The results suggest that positive and negative implicit attitudes towards engineering have distinct trends. Positive self-esteem, autonomous style of learning, and higher learning competencies are associated with a positive implicit attitude toward engineering.

Study 2: There are a few dimensions of emerging adulthood that have desirable outcome trends, both in yoga and non-yoga practitioners. Distinct features of yoga practitioners are students with close attachment styles, those who exercise inner free will, and with autonomy supportive parenting style tend to have a positive outlook.

Study 3: Pre-test and post-test results showed significant differences within sessions in EEG meditation state and Low Alpha state in both groups. After the intervention, the sports group showed a significant difference at the end of the session, whereas the yoga group showed a significant difference at the beginning of the session.

Study 4: The results showed that Perceived Competency for learning has decreased in the yoga group than in sports group; *Guṇa* and Self-focused have decreased in the yoga group, Negativity and Instability have increased in the sports group.

Study 5: The pre-test and post-test comparative study results showed that Identity Exploration has increased in the sports group and decreased in the yoga group; Experimentation and possibilities have increased in the yoga group, and Self-focused has decreased in the yoga group.

CONCLUSION

Positive and negative implicit attitude towards engineering have distinct trends of relationship. Having positive self-esteem, an autonomous style of the reason for learning, and higher learning competencies are associated with fostering a positive implicit attitude towards engineering. Yoga may promote self-regulated ways of inner growth and learning in emerging adults. The SKY meditation technique can influence the state of mediation, low alpha, high gamma, and mid gamma EEG bands. Sports can influence perceived competency. Yoga can influence self-focused, experimentation and possibilities.

CONTENTS

Sl. No.	DETAILS	PAGE NO.
1.0	INTRODUCTION	1
1.1	FACTORS ASSOCIATED WITH DECLINING ENROLLMENTS IN ENGINEERING PROGRAMMES	1
1.2	STATUS OF TECHNICAL EDUCATION IN INDIA	2
1.3	THE GAP BETWEEN ENGINEERING GRADUATE AND INDUSTRY REQUIREMENTS	3
1.4	EDUCATION FOR SUSTAINABLE DEVELOPMENT	3
1.5	IMPLICIT ATTITUDE AND SELF-CONCEPT	4
1.6	PARENTING STYLES AND EMERGING ADULthood	4
1.7	SELF-DETERMINATION THEORY AND CAREER CHOICE	6
1.8	REASONS FOR ENGINEERING CHOICE	7
1.9	YOGA AS A SOLUTION FOR THE CHALLENGES OF EMERGING ADULthood	7
1.10	SCOPE OF THE STUDY	8
2.0	LITERARY RESEARCH	10
2.1	INTRODUCTION	10
2.1.1	AIM	10

2.1.2	OBJECTIVES	10
2.1.3	METHODOLOGY OF THE REVIEW	11
2.2	ĀŚTANGA YOGĀ	11
2.2.1	YAMĀ	12
2.2.2	NIYAMĀ	14
2.2.3	ĀSANĀ	15
2.2.4	PRĀṆĀYĀMĀ	16
2.2.5	PRATYĀHĀRĀ	18
2.2.6	DHĀRAṆĀ	19
2.2.7	DHYĀNĀ	20
2.2.8	SAMĀDHI	22
2.2.9	STAGES OF CONSCIOUSNESS	24
2.2.10	STAGES OF CONSCIOUSNESS IN <i>TIRUMANTIRAM</i>	24
2.2.11	SUMMARY	27
3.0	REVIEW OF SCIENTIFIC LITERATURE	28
3.1	REVIEW OF SCIENTIFIC LITERATURE ON DIMENSIONS OF	28

	EMERGING ADULTHOOD	
3.2	REVIEW OF SCIENTIFIC LITERATURE ON IMPLICIT ASSOCIATION	33
3.3	REVIEW OF SCIENTIFIC LITERATURE ON ATTACHMENT STYLES	36
3.4	REVIEW OF SCIENTIFIC LITERATURE ON PARENTING STYLE	41
3.5	REVIEW OF SCIENTIFIC LITERATURE ON SELF-ESTEEM	47
3.6	REVIEW OF SCIENTIFIC LITERATURE ON PERCEIVED COMPETENCY FOR LEARNING	53
3.7	REVIEW OF SCIENTIFIC LITERATURE ON REASONS FOR LEARNING	59
3.8	REVIEW OF SCIENTIFIC LITERATURE ON FREEWILL AND DETERMINISM	63
3.9	REVIEW OF SCIENTIFIC LITERATURE ON ‘G’ INVENTORY OF PERSONALITY	69
3.10	REVIEW OF SCIENTIFIC LITERATURE ON MINDFULNESS	73
3.11	REVIEWS ON ELECTROENCEPHALOGRAM (EEG) AND MEDITATION	79
3.12	REVIEW OF SCIENTIFIC LITERATURE ON SOCIAL DESIRABILITY SCALE	85
3.13	REVIEW OF SCIENTIFIC LITERATURE ON SIMPLIFIED	89

	<i>KUNḌALINĪ</i> YOGA	
4.0	AIMS AND OBJECTIVES	94
4.1	AIMS OF THE STUDY	94
4.2	OBJECTIVES OF THE STUDY	94
4.3	RESEARCH QUESTION	94
4.4	HYPOTHESIS	94
4.5	NUL HYPOTHESIS	95
5.0	METHODS	96
5.1	OVERVIEW OF ALL THE FIVE STUDIES	96
5.2	STUDY ONE	96
5.2.1	PARTICIPANTS	96
5.2.1.1	SAMPLE SIZE	96
5.2.1.2	SOURCE OF PARTICIPANTS	97
5.2.1.3	INCLUSION CRITERIA	97
5.2.1.4	EXCLUSION CRITERIA	97
5.2.1.5	ETHICAL CONSIDERATION	97
5.2.2	DESIGN OF THE STUDY	97
5.2.3	VARIABLES STUDIED	97

5.2.3.1	ENGINEERING IMPLICIT ATTITUDE	98
5.2.3.2	ATTACHMENT STYLE	98
5.2.3.3	REASONS FOR LEARNING	99
5.2.3.4	PERCEIVED COMPETENCY FOR LEARNING	99
5.2.3.5	SELF-ESTEEM	99
5.2.3.6	PARENTING STYLE	100
5.2.3.7	SOCIAL DESIRABILITY SCALE	100
5.2.3.8	GENERAL HEALTH	101
5.2.4	DATA COLLECTION	101
5.2.5	DATA ANALYSIS	102
5.3	STUDY TWO	102
5.3.1	PARTICIPANTS	102
5.3.1.1	SAMPLE SIZE	102
5.3.1.2	SOURCE OF PARTICIPANTS	102
5.3.1.3	INCLUSION CRITERIA	103
5.3.1.4	EXCLUSION CRITERIA	103
5.3.1.5	ETHICAL CONSIDERATION	103
5.3.2	DESIGN OF THE STUDY	103

5.3.3	VARIABLES STUDIED	103
5.3.3.1	FREEWILL AND DETERMINISM	104
5.3.3.2	ENGINEERING IMPLICIT ATTITUDE	104
5.3.3.3	PARENTING STYLE	105
5.3.3.4	ATTACHMENT STYLE	105
5.3.3.5	SOCIAL DESIRABILITY SCALE	105
5.3.3.6	GENERAL HEALTH	105
5.3.4	DATA COLLECTION	105
5.3.5	DATA ANALYSIS	105
5.4	STUDY THREE	106
5.4.1	PARTICIPANTS	106
5.4.1.1	SAMPLE SIZE	106
5.4.1.2	SOURCE OF PARTICIPANTS	106
5.4.1.3	INCLUSION CRITERIA	106
5.4.1.4	EXCLUSION CRITERIA	106
5.4.1.5	ETHICAL CONSIDERATION	107
5.4.2	DESIGN OF THE STUDY	107
5.4.3	VARIABLES STUDIED	107

5.4.3.1	MINDFULNESS	108
5.4.3.2	ELECTROENCEPHALOGRAM (EEG)	108
5.4.3.3	ATTACHMENT STYLE	109
5.4.3.4	SOCIAL DESIRABILITY SCALE	109
5.4.3.5	GENERAL HEALTH	109
5.4.4	INTERVENTION	109
5.4.4.1	SIMPLIFIED <i>KUNḌALINĪ</i> YOGA	111
5.4.4.2	<i>ĀGNĀ</i> MEDITATION	111
5.4.4.3	<i>ŚANTHI</i> MEDITATION	111
5.4.4.4	<i>TURIYĀ</i> MEDITATION	112
5.4.4.5	<i>KāYA KALPA</i> YOGA	112
5.4.4.6	INTROSPECTION	112
5.4.4.7	ANALYSIS OF THOUGHTS	113
5.4.4.8	MORALIZATION OF DESIRE	113
5.4.4.9	NEUTRALIZATION OF ANGER	114
5.4.4.10	ERADICATION OF WORRIES	114
5.4.4.11	SIMPLIFIED PHYSICAL EXERCISES	115

5.4.4.12	HAND EXERCISES	116
5.4.4.13	LEG EXERCISES	116
5.4.4.14	NEURO-MUSCULAR BREATHING EXERCISES	116
5.4.4.15	EYE EXERCISES	117
5.4.4.16	KAPĀLABHĀTI EXERCISES	117
5.4.4.17	MAKĀRĀSAṆĀ EXERCISES PART 1 & 2	117
5.4.4.18	BODY MASSAGE	118
5.4.4.19	14-POINT ACUPRESSURE	118
5.4.4.20	Relaxation	120
5.4.4.21	WEEKLY TRAINING PROGRAMME	121
5.4.5	DATA COLLECTION	121
5.4.6	DATA ANALYSIS	123
5.5	STUDY FOUR	123
5.5.1	PARTICIPANTS	123
5.5.1.1	SAMPLE SIZE	123
5.5.1.2	SOURCE OF PARTICIPANTS	123
5.5.1.3	INCLUSION CRITERIA	123
5.5.1.4	EXCLUSION CRITERIA	124

5.5.1.5	ETHICAL CONSIDERATION	124
5.5.2	DESIGN OF THE STUDY	124
5.5.3	VARIABLES STUDIED	124
5.5.3.1	PERCEIVED COMPETENCY FOR LEARNING	125
5.5.3.2	DIMENSIONS OF EMERGING ADULTHOOD	125
5.5.3.3	SOCIAL DESIRABILITY SCALE	125
5.5.3.4	ATTACHMENT STYLE	125
5.5.3.5	GENERAL HEALTH	125
5.5.3.6	'G' INVENTORY OF PERSONALITY	125
5.5.4	INTERVENTION	126
5.5.5	DATA COLLECTION	126
5.5.6	DATA ANALYSIS	126
5.6	STUDY FIVE	127
5.6.1	PARTICIPANTS	127
5.6.1.1	SAMPLE SIZE	127
5.6.1.2	SOURCE OF PARTICIPANTS	127
5.6.1.3	INCLUSION CRITERIA	127
5.6.1.4	EXCLUSION CRITERIA	127
5.6.1.5	ETHICAL CONSIDERATION	127
5.6.2	DESIGN OF THE STUDY	128

5.6.3	VARIABLES STUDIED	128
5.6.3.1	ATTACHMENT STYLE	128
5.6.3.2	DIMENSIONS OF EMERGING ADULTHOOD	128
5.6.3.3	SOCIAL DESIRABILITY SCALE	128
5.6.3.4	GENERAL HEALTH	129
5.6.3.5	‘G’ INVENTORY OF PERSONALITY	129
5.6.4	INTERVENTION	129
5.6.5	DATA COLLECTION	129
5.6.6	DATA ANALYSIS	129
6.0	RESULTS	131
6.1	STUDY ONE	131
6.1.1	DESCRIPTIVE STATISTICS	132
6.1.2	IMPLICIT ATTITUDE TOWARDS ENGINEERING	134
6.1.3	CORRELATION ACROSS POSITIVE AND NEGATIVE IMPLICIT ATTITUDE GROUPS	135
6.2	STUDY TWO	138
6.2.1	DESCRIPTIVE STATISTICS	138
6.2.2	YOGA PRACTICE AND CAREER CHOICE	140
6.2.3	PEARSON’S PARTIAL CORRELATION	141
6.3	STUDY THREE	144
6.3.1	DESCRIPTIVE STATISTICS	144

6.3.2	REPEATED MEASURES ANOVA BEFORE AND AFTER THE INTERVENTION ON EEG VARIABLES	150
6.4	STUDY FOUR	152
6.4.1	DESCRIPTIVE STATISTICS	152
6.4.2	MANN-WHITNEY U TEST	154
6.5	STUDY FIVE	155
6.5.1	DESCRIPTIVE STATISTICS	155
6.5.2	MANN-WHITNEY U TEST	158
7.0	DISCUSSIONS	160
7.1	STUDY ONE	160
7.1.1	SELF-ESTEEM AND ATTACHMENT STYLE	160
7.1.2	PARENTAL BEHAVIOUR AND ATTACHMENT STYLE	160
7.1.3	PARENTAL BEHAVIOUR AND SELF-ESTEEM	162
7.1.4	SELF-ESTEEM AND LEARNING	163
7.2	STUDY TWO	166
7.2.1	ATTACHMENT STYLE, FREEWILL AND DETERMINATION, THE IDEA AND PARENT SCALE	166
7.2.2	FREEWILL AND DETERMINATION, THE IDEA AND PARENT SCALE	166
7.2.3	THE IDEA AND PARENT SCALE	167
7.3	STUDY THREE	168

7.4	STUDY FOUR	172
7.5	STUDY FIVE	175
8.0	APPRAISAL	179
8.1	SUMMARY OF THE FINDINGS	179
8.2	CONCLUSION	179
8.3	IMPLICATIONS OF THE STUDY	180
8.4	APPLICATIONS OF THE STUDY	180
8.5	STRENGTH OF THE STUDY	180
8.6	LIMITATION OF THE STUDY	181
8.7	SUGGESTIONS FOR FUTURE STUDIES	181
9.0	REFERENCES	182

SL.NO.	APPENDICES	PAGE NO.
1.0	LIST OF PUBLICATIONS FROM THIS RESEARCH	211
2.0	ETHICS COMMITTEE APPROVAL	212
3.0	INFORMED CONSENT FORM	214
4.0	ASSESSMENT INSTRUMENTS	216
5.0	PHOTOS	228

LIST OF TABLES

TABLE NO.	TITLE	PAGE NO.
2.0. LITERARY RESEARCH		
2.1	<i>Stages of Consciousness according to Yogasūtra</i>	24
2.2	<i>Stages of Consciousness according to Tirumantiram</i>	26
3.0 REVIEW OF SCIENTIFIC LITERATURE		
3.1	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON DIMENSIONS OF EMERGING ADULthood</i>	29
3.2	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON IMPLICIT ASSOCIATION</i>	34
3.3	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON ATTACHMENT STYLE</i>	37
3.4	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON PARENTING STYLE</i>	42
3.5	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON SELF-ESTEEM</i>	48
3.6	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON PERCEIVED COMPETENCY FOR LEARNING</i>	54
3.7	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON REASON FOR LEARNING</i>	60
3.8	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON FREEWILL AND DETERMINISM</i>	64

3.9	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON 'G' INVENTORY OF PERSONALITY</i>	70
3.10	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON MINDFULNESS</i>	74
3.11	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON EEG AND MEDITATION</i>	80
3.12	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON SOCIAL DESIRABILITY SCALE</i>	86
3.13	<i>SUMMARY TABLE OF SCIENTIFIC RESEARCH ON SKY</i>	90
5.0. METHOD		
5.1	<i>WEEKLY TRAINING PROGRAMME – DAY 1</i>	120
5.2	<i>WEEKLY TRAINING PROGRAMME – DAY 1</i>	121
6.0. RESULTS		
6.1	<i>Descriptive Statistics</i>	132
6.2	<i>Implicit-Explicit Attitude Towards Engineering</i>	134
6.3	<i>Correlation Across Positive and Negative Implicit Attitude Groups</i>	135
6.4	<i>Descriptive statistics</i>	139
6.5	<i>Pearson's Partial Correlation across Yoga Practitioners and Non- Yoga Practitioners</i>	141
6.6	<i>Descriptive Statistics for psychological variables</i>	145
6.7	<i>Descriptive Statistics for EEG variables</i>	146
6.8	<i>Repeated Measures ANOVA before and after the intervention on EEG</i>	150

	<i>variables</i>	
6.9	<i>Group Descriptives</i>	152
6.10	<i>Mann-Whitney U test</i>	154
6.11	<i>Group Descriptives</i>	156
6.12	<i>Mann-Whitney U test</i>	158

LIST OF FIGURES

Figure No.	TITLE	PAGE NO.
2.0. LITERARY RESEARCH		
2.1	<i>Stages of Samādhi according to Patanjali Yoga Sutra</i>	33
5.0. METHOD		
5.1	<i>Study Design Overview</i>	109
6.0. RESULTS		
6.1	<i>Study Design of Study 1</i>	132
6.2	<i>Study Design of Study 2</i>	139
6.3	<i>Study Design of Study 3</i>	144
6.4	<i>Study Design of Study 4</i>	152
6.5	<i>Study Design of Study 5</i>	155