# SRINIVASAN CHANDRASEKARAN

Current position: Professor - Higher Academic Grade (HAG) Field of specialization: Structural Engineering Dept of Ocean Engineering, IIT Madras Chennai 600 036, INDIA Email: drsekaran@iitm.ac.in Homepage: www.drsekaran.com Tel: +91-044-22574821; Mobile" 9444583179 Date of birth: 27<sup>th</sup> October 1964



#### Publications and research statistics

Google Scholar: https://scholar.google.co.in/citations?user=LsBjvFEAAAAJ&hl=en

h-index: 25; i-10 index: 80

Indexed in the top 2% of world-leading scientists by a survey conducted by Stanford and Elsevier.

https://www.adscientificindex.com/top-100-scientist/?s=200&q=iit+madras

(PI see page 3 at serial number 2)

Ranked as top 2% in the world by another independent survey conducted by Elsevier. https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/4

(My name can be searched in Table 1 as Chandrasekaran)

Conferred Best Reviewer award by the Korean Society of Steel structures for the International Journal of steel structures.

Conferred Best Teacher Award, 2022, by IIT Madras for excellence in teaching and research Textbooks authored: EIGHTEEN

Textbooks edited: FOUR

Research papers published in Refereed journals: EIGHTY-EIGHT

Research papers published in Refereed conferences: EIGHTY-TWO

PhD thesis guided: EIGHTEEN (currently in progress: SEVEN)

M.S (by Research) guided: FOURTEEN

# **Education**

Post Doctorate (Structural and Earthquake Engineering): 2007 to 2009

University of Naples Federico II, Naples, Italy/ Earthquake Engineering

Ph.D (Structural engineering): 1999

Indian Institute of Technology, Delhi- Specialization in Structural Engineering

M.Tech (Structural Engineering): 1995

Indian Institute of Technology, Delhi- Specialization in Structural Engineering

B.E (Civil Engineering with distinction): 1991

University Rank Holder, Bharathiyar University, Coimbatore, India

#### Areas of Specialization

Offshore compliant structures

Structural Dynamics and Earthquake Engineering

Seismic evaluation and retrofitting of buildings and offshore structures

Risk and Reliability of offshore structures

Structural health monitoring using wireless sensor networking

Design and development of wave energy devices

Health, Safety, and environmental management for offshore and petroleum engineering

#### Academic positions

- *Visiting Professor (Structural Engg)*, Dept of Structural Engg., University of Naples Federico II, Naples, Italy (09/2023 till 12/2023
- *Visiting Professor,* Int. Maritime Studies, Dept. of Maritime Engg., Kesarsat University, Siricha Campus, Thailand (01/2024 till 04/2024).
- Professor (HAG) Dept. of Ocean Engg., Indian Institute of Technology Madras, India since 07/2014

Teaching, Industrial consultancy and sponsored research, Member- Board of Acad Res, Member- Health and Safety Comm.,

Associate Professor, Dept. of Ocean Engg, Indian Institute of Technology Madras, INDIA (from 08/2009 to 07/2014) Teaching and Research, Industrial consultancy

Reader (Structural Engg), Dept of Civil Engg, Institute of Technology, BHU, INDIA: from 12/2007 to 08/2009

Teaching, research, industrial consultancies, University Engineer (additional charge), University Works Dept, Banaras Hindu University. Clients: Public Works Dept, UP state PWD, UP state bridge Cons. Corpn.

- Visiting Fellow MiUR (Ministry of Italian University and Research), Dept of Structural Engg, Univ. of Naples Federico II, Italy (05/2007 to 05/2009) - Teaching, research and sponsored research consultancies (design and development of passive response control of structures using MR dampers and viscous dampers). Clients: Fipp- Italy, Maurer and Shone, Germany, Reluis Line 7- International project with European Union
- Lecturer, Dept of Civil Engg, Institute of Technology, Banaras Hindu University, INDIA: 08/2002 to 12/2007

Teaching and Research, Industrial consultancy

Assistant Professor, Rao Tula Ram College of Technical Education, New Delhi 06/1991 to 01/2000

#### Teaching experience

Involved in teaching Undergraduate students, post-graduate students, and Ph. D scholars of various disciplines, namely Civil engineering, Structural engineering, Ocean Engg, offshore structural engineering, Petroleum engineering, and Naval architecture. I have taught the

following courses for more than 5 cycles each; some are even being taught for more than 12 cycles (for example, structural dynamics). Teacher Course Feedback is relatively higher in comparison to both the Dept mean, and the Institute mean scores.

# **Technology/ Products/ Patents**

- i) Number of innovative technologies developed: FOUR
- ii) Number of technology transfer agreements concluded: TWO
- iii) Number of national/ International patents filed/granted: THREE
- iv) Number of model/prototype deployments: NIL

# **Technoloqv Transfers**

1. Offshore triceratops for ultra-deep water oil exploration-Rail vikas Nigam Ltd

(TT12130EC096lvAXSRIA): Period: 01/2013 to 01/2023, Amount: INR 10759

2. Double Rack Mechanical wave energy converter: Novel method for harnessing

wave energy-Rail Vikas Nigam Ltd, Vizag (TT12130EC095IvAXSRIA): Period:

01/2013 to 01/2023, Amount: INR 10750

Patents filed and Granted L=-

1. A system for harnessing wave energy: International patent applied in 02/2021

# PCT/182021 /050992

2. Floating wave energy converter: Indian patent granted

326437-001

3. Marine riser with Functionally graded material: Filed for Indian patent 202041007325 filed on 02/2020

	Course	Prof. Srinivasan Chandrasekaran, Dept of G	TCF summary			
S.No		Course Name	Period	Total Strength	Class Strength	TCFScore
1	OE5200	Dynamics of Ocean Structures	JUL-NOV 2022	27	27	
2	OE5330	Advanced Marine Structures	JUL-NOV 2022	0	0	
3	OE2024	Analysis of Structures	JAN-MAY 2022	79	79	.8400
4	OE5410	Advanced steel design	JAN-MAY 2022	18	18	.9150
5	OE5330	Advanced Marine Structures	JUL-NOV 2021	0	0	
6	OE5200	Dynamics of Ocean Structures	JUL-NOV 2021	38	38	.9280
7	OE2024	Analysis of Structures	JAN-MAY 2021	62	62	.8120
8	OE5410	Advanced steel design	JAN-MAY 2021	13	13	.9230
9	OE5200	Dynamics of Ocean Structures	JUL-NOV 2020	44	44	.9610
10	OE5330	Advanced Marine Structures	JUL-NOV 2020	8	8	.9330
11	OE4120	Computer-aided analysis of structures	JAN-MAY 2020	0	0	
12	OE5410	Advanced steel design	JAN-MAY 2020	16	16	.8830
13	OE2024	Analysis of Structures	JAN-MAY 2020	47	47	.8610
14	OE5200	Dynamics of Ocean Structures	JUL-NOV 2019	13	13	.9720
15	OE6901	Project II	JAN-MAY 2019	9	9	
16	OE2024	Analysis of Structures	JAN-MAY 2019	48	48	.9250
17	OE6901	Project II	JUL-NOV 2018	0	0	
18	OE5200	Dynamics of Ocean Structures	JUL-NOV 2018	26	26	.8860
19	OE6901	Project II	JAN-MAY 2018	8	8	
20	OE2024	Analysis of Structures	JAN-MAY 2018	63	63	
21	OE6901*	Project I	JUL-NOV 2017	8	8	
22	OE6901	Project II	JUL-NOV 2017	0	0	
23	OE5330	Advanced Marine Structures	JUL-NOV 2017	24	24	
24	OE5200	Dynamics of Ocean Structures	JUL-NOV 2017	26	26	.7520
25	OE6005	Reliability of Offshore Structures	JAN-MAY 2017	19	19	.9490
26	PE6090	HSE Mgmt.in Petroleum & Offshore Engg.	JUL-NOV 2016	15	15	.9740
27	OE5330	Advanced Marine Structures	JUL-NOV 2016	14	14	.9140
28	OE5200	Dynamics of Ocean Structures	JUL-NOV 2016	47	47	.8620
29	OE5050	Ocean Structures & amp; Materials	JUL-NOV 2016	15	15	.9460
30	OE5200	Dynamics of Ocean Structures	JAN-MAY 2016	29	29	.9490
31	PE6090	HSE Mgmt.in Petroleum & Offshore Engg.	JAN-MAY 2016	57	57	.8870
32	OE5330	Advanced Marine Structures	JUL-NOV 2015	5	3	.9610
33	OE5020	Design Project	JUL-NOV 2015	0	0	
34	OE5050	Ocean Structures & amp; Materials	JUL-NOV 2015	43	43	.9750
35	OE5200	Dynamics of Ocean Structures	JAN-MAY 2015	28	28	.8650
36	PE6100	Petoleum Engg. Lab	JAN-MAY 2015	12	2	
37	PE6090	HSE Mgmt.in Petroleum & Offshore Engg.	JAN-MAY 2015	35	35	.9020
38	PE6200	Thesis Project (Part II)	JAN-MAY 2015	12	12	.9730
39	PE6200+	Thesis Project (Part II)	JAN-MAY 2015	0	0	
40	PE6200*	Thesis Project-Part I	JUL-NOV 2014	12	12	

# Teacher Course Feedback for the courses taught

41	PE6200	Thesis Project (Part II)	JUL-NOV 2014	0	0	
42	OE5330	Advanced Marine Structures	JUL-NOV 2014	14	7	
43	OE5050	Ocean Structures & amp; Materials	JUL-NOV 2014	55	55	
44	OE5020	Design Project	JUL-NOV 2014	0	0	
45	OE5050	Ocean Structures & amp; Materials	JAN-MAY 2014	2	2	
46	OE5200	Dynamics of Ocean Structures	JAN-MAY 2014	62	62	.9310
		HSE Mgmt.in Petroleum &				
47	PE6090	Offshore Engg.	JAN-MAY 2014	37	37	.9600
48	PE6200	Thesis Project (Part II)	JAN-MAY 2014	11	11	
49	OE5330	Advanced Marine Structures	JUL-NOV 2013	5	3	.9500
50	PE6200	Thesis Project (Part II)	JUL-NOV 2013	0	0	
51	PE6200*	Thesis Project-Part I	JUL-NOV 2013	11	11	
52	OE5130	Lab I	JUL-NOV 2013	47	16	.9520
53	OE5050	Ocean Structures & amp; Materials	JUL-NOV 2013	32	32	.9740
54	OE5020	Design Project	JUL-NOV 2013	0	0	
55	OE5200	Dynamics of Ocean Structures	JAN-MAY 2013	41	41	.9160
56	OE6005	Reliability of Offshore Structures	JAN-MAY 2013	14	7	.8360
	DECODO	HSE Mgmt.in Petroleum & amp;		25	0.5	0070
57	PE6090	Offshore Engg.	JAN-MAY 2013	25	25	.8870
58	PE6200+	Thesis Project (Part II)	JAN-MAY 2013	7	4	
59	PE6200	Thesis Project (Part II)	JUL-NOV 2012	1	1	
60	OE5130	Lab I	JUL-NOV 2012	30	10	.8880
61	OE5330	Advanced Marine Structures	JUL-NOV 2012	15	8	.8860
62	OE5050	Ocean Structures & amp; Materials	JUL-NOV 2012	30	30	.9280
63	OE5200	Dynamics of Ocean Structures	JAN-MAY 2012	47	47	.8610
64	OE6005	Reliability of Offshore Structures	JAN-MAY 2012	11	6	.9200
65	PE6090	HSE Mgmt.in Petroleum & amp; Offshore Engg.	JAN-MAY 2012	14	14	.8410
66	OE5130	Lab I	JUL-NOV 2011	40	10	.8450
67	OE5330	Advanced Marine Structures	JUL-NOV 2011	19	6	.9010
68	OE5050	Ocean Structures & amp; Materials	JUL-NOV 2011	36	18	.8790
69	OE5200	Dynamics of Ocean Structures	JAN-MAY 2011	21	21	.8330
70	PE6090	HSE Mgmt.in Petroleum & amp; Offshore Engg.	JAN-MAY 2011	17	17	.7730
71	OE6970	Comp.Aided Analysis of Offshore Struc.&Ships	JUL-NOV 2010	7	4	.6400
72	OE5330	Advanced Marine Structures	JUL-NOV 2010	4	1	.9900
73	OE5050	Ocean Structures & amp; Materials	JUL-NOV 2010	47	24	.8630
74	OE5130	Laboratory I	JUL-NOV 2010	28	14	.8090
75	OE5200	Dynamics of Ocean Structures	JAN-MAY 2010	8	8	.8790
76	PE6090	HSE Mgmt.in Petroleum & amp; Offshore Engg.	JAN-MAY 2010	2	2	.9460
77	OE5130	Laboratory I	JUL-NOV 2009	0	0	
78	OE5050	Ocean Structures & amp; Materials	JUL-NOV 2009	3	2	.9550
79	OE5190	Shipboard Training	SUMMER 2018	9	9	

#### Contributions to web-based courses

Dr Chandrasekaran has also been very active in contributing to the National Program of Technology Enhanced Learning (NPTEL), a Govt. of India initiative towards developing webbased courses for engineering branches. It is important to mention that he has developed, offered, evaluated, and certified about twenty-four courses, one of the highest and unique for faculty members of IITs in India. More than 1 lac participants have undergone these courses, including students, research scholars, practicing engineers, and faculty members of various engineering colleges in India and abroad. List of video courses developed and conducted for Mass Open Online communication (MOOC) program under the National Program on Technology Enhanced Learning (NPTEL), Min. of Education, Govt. of India.

- 1. Srinivasan Chandrasekaran. 2022. Computer methods of structural analysis, Re-run Video course on MOOC at https://onlinecourses.nptel.ac.in/noc22\_oe04/course
- Srinivasan Chandrasekaran. 2022. Dynamics of offshore structures, Re-run Video course on MOOC at <u>https://onlinecourses.nptel.ac.in/noc22\_oe03/course</u>
- 3. Srinivasan Chandrasekaran. 2022. Advanced steel design, Video course on MOOC at <a href="https://onlinecourses.nptel.ac.in/noc22\_oe02/course">https://onlinecourses.nptel.ac.in/noc22\_oe02/course</a>
- 4. Srinivasan Chandrasekaran. 2022. Offshore Structures Under Special Environmental Loads Including Fire Resistance, Re-run Video course on MOOC at https://onlinecourses.nptel.ac.in/noc22\_oe01/preview\_
- Srinivasan Chandrasekaran. 2021. Offshore structures under special loads including fire resistance, Re-run Video course on MOOC at <u>https://onlinecourses.nptel.ac.in/noc21\_oe01/preview</u>
- Srinivasan Chandrasekaran. 2021. Computer methods of structural analysis of offshore structures, Re-run Video course on MOOC at <u>https://onlinecourses.nptel.ac.in/noc21\_oe03/preview</u>
- 7. Srinivasan Chandrasekaran. 2021. Dynamics of ocean structures, Re-run Video course on MOOC available at <a href="https://onlinecourses.nptel.ac.in/noc21\_oe02/preview">https://onlinecourses.nptel.ac.in/noc21\_oe02/preview</a>
- Srinivasan Chandrasekaran. 2020. Offshore structures under special loads including fire resistance, Re-run Video course on MOOC available at <u>https://onlinecourses.nptel.ac.in/noc20\_oe01/preview</u>
- Srinivasan Chandrasekaran. 2020. Computer methods of structural analysis of offshore structures, Re-run Video course on MOOC available at <u>https://onlinecourses.nptel.ac.in/noc20\_oe03/preview</u>
- 10. Srinivasan Chandrasekaran. 2020. Dynamics of Ocean structures, Re-run Video course on MOOC available at <a href="https://onlinecourses.nptel.ac.in/noc20\_oe02/preview">https://onlinecourses.nptel.ac.in/noc20\_oe02/preview</a>
- 11. Srinivasan Chandrasekaran. 2019. Offshore structures, under special loads including fire resistance, Video course on MOOC
- 12. Srinivasan Chandrasekaran. 2018. HSE practices for offshore and petroleum industries, Video course on MOOC
- 13. Srinivasan Chandrasekaran. 2018. Risk and Reliability of offshore structures, Video course on MOOC
- Srinivasan Chandrasekaran. 2018. Structural Health Monitoring, Video course on MOOC at <u>https://nptel.ac.in/courses/114106046</u>

- 15. Srinivasan Chandrasekaran. 2017.HSE practices for offshore and petroleum industries, Video course on MOOC
- Srinivasan Chandrasekaran. 2017. Offshore structures under special loads including fire resistance, Video course on MOOC at <u>https://nptel.ac.in/courses/114106043</u>
   Srinivasan Chandrasekaran. 2017. Computer methods of structural analysis of offshore structures, Video course on MOOC at <u>https://nptel.ac.in/courses/114106045</u>
- 17. Srinivasan Chandrasekaran. 2016.HSE for offshore and petroleum engineers-Practices, Video course on MOOC at <u>https://nptel.ac.in/courses/114106042</u>
- Srinivasan Chandrasekaran . 2016. Risk and Reliability of offshore structures, Video course on MOOC at <u>https://nptel.ac.in/courses/114106041</u>
- Srinivasan Chandrasekaran . 2015. Dynamic analysis of offshore structures, Re-run Video course on MOOC at <u>https://nptel.ac.in/courses/114106038</u>
- 20. Srinivasan Chandrasekaran . 2015. HSE for offshore and petroleum engineering, Rerun Video course on MOOC at <u>https://nptel.ac.in/courses/114106039</u>
- 21. Srinivasan Chandrasekaran. 2013. Advanced Marine Structures, Video course available at <a href="https://nptel.ac.in/courses/114106037">https://nptel.ac.in/courses/114106037</a>
- 22. Srinivasan Chandrasekaran . 2013. Dynamics of Ocean Structures, Video Course available at <a href="https://nptel.ac.in/courses/114106036">https://nptel.ac.in/courses/114106036</a>
- 23. Srinivasan Chandrasekaran . 2013. Ocean structures and materials, Video course available at <a href="https://nptel.ac.in/courses/114106035">https://nptel.ac.in/courses/114106035</a>
- 24. Srinivasan Chandrasekaran. 2012. Health, safety and Environmental Management (HSE) in Petroleum and Offshore Engineering, Video course available at <a href="https://nptel.ac.in/courses/114106017">https://nptel.ac.in/courses/114106017</a>

#### Research experience

Dr. Chandrasekaran has maintained a balance between academic and practical experience in the past 32 years. He has interests in structural dynamics and earthquake engineering, nonlinear dynamics of offshore structures under environmental loads, and structural health monitoring and control. In the past 22 years, he has obtained experience in nonlinear dynamic analysis of buildings and offshore structures and investigated them for their critical performance behavior under various environmental loadings. He has been an active member of different administrative and technical committees at IIT Madras and Banaras Hindu University, Varanasi. Dr. Chandrasekaran has combined experience in teaching, research, and industrial consultancy in designing and supervising heavy industrial structures for the paper industry and cement industries in Southern India. He has successfully completed many types of research-based industrial consultancy projects resulting in the design and development of new design principles/mechanisms as applied to buildings and offshore structures; a few of them include i) design and development of damping devices for response control of structures; design and development of wave energy devices; and risk assessment of offshore projects on oil and gas industry.

#### **Post-Doctoral Research**

Dr. Chandrasekaran is the recipient of the Post-Doctoral Fellow offered by the Ministry of University Research (MIUR), Italy for two years with effect from 15th May 2007. He conducted research jointly with Prof. Giorgio Serino, Dept of Structural Engg, University of Naples Federico II, Naples, Italy. The broad area of his research work focused on the Development of Nonlinear calculation models for buildings in seismic areas and experimental validation, including developing technologies for seismic isolation and control of structures. The main objective of the fellowship work is to improve the knowledge of some specific aspects of the design and functioning of passive and semi-active systems for response control of structures subjected to seismic loads. The activities focus on theoretical and experimental studies including parametric investigations and case studies to update the design and verification methods of structural systems and devices for control algorithms of structural response. Detailed analytical studies are conducted on performance assessment of multi-story RC framed buildings under seismic loading using modal pushover analyses. Using Euro Code, comprehensive design guidelines are developed for estimating axial forcebending moment yield interaction, moment rotation, and moment characteristics for RC frame elements. Advanced studies are also conducted on the response behavior of offshore tension leg platforms under different environmental loadings.

#### Project's coordination

Principal Investigator, Naval Research Board (Hydrodynamics Panel) 2019-2022. Numerical and Experimental Study of Water Entry and Exit of Rigid Bodies

Member, Research Team (ReLUIS) 2007-2009. This is a project financed by the Italian Department of Civil Protection (DPC) within the Italian Network of Earthquake Engineering Laboratories.

Deputy Coordinator- SAP Project financed by University Grants Commission, India for Analysis, design, rehabilitation, and retrofitting of Masonry and RC framed buildings under seismic loads.

Successfully completed consultancy projects for Changwon University, South Korea, University of Naples Federico II Italy, AERB, L&T, DGNP Mumbai, DGNP Vizag, BGR Energy, Sea6 Energy Consultancy for Ship Building Centre, Vizag under Director General Naval Projects, Govt. of India

Seismic qualification of bus duct for atomic power station, Kalpakkam, Govt. of India

International coordinator for foreign students from Korea and Italy to carry out researchbased projects at Dept of Ocean Engg, IIT Madras.

#### International coordination

Coordinator for international cooperation in academic and research activities between IIT Madras and University of Naples Federico II, Italy

Coordinator for international cooperation in academic and research activities between IIT Madras and Changwon National University, South Korea

### **Credits**

MiUR Fellow, Ministry of Italian University Research, Govt. of Italy Member, American Society of Civil Engineers (MASCE) Member, Int. Society of Offshore and Polar Engineers (MISOPE) Member, Society of Petroleum Engineering (SPA) Member, American Society of Mechanical Engineers (MASME) Life member, Society of Failure Analysis (SFA) University Rank Holder during Bachelor Program in Civil Engg Holds Five Indian patents

#### List of publications

#### **Books Authored**

- 1. Srinivasan Chandrasekaran, Gaurav Srivastava. 2022. Fire resistant design of structures, CRC Press, USA, pp. 212, ISBN: 9781003328711
- Srinivasan Chandarasekaran, Faisal Khan Rouzbeh Abbassi 2022. Wave energy devices: Design, Development and Experimental studies, CRC press, Florida, pp. 271, ISBN: 9781032250755.
- Srinivasan Chandrasekaran, Arvind Kr. Jain Nasir Shafiq M. Mubarak A. Wahab 2021. Design aids for offshore platforms under special loads, CRC press, Florida, pp. 280, ISBN: 9781032136844.
- Srinivasan Chandrasekaran, and R. Nagavinothini. 2020. Offshore compliant platforms: Analysis, design and experimental studies, Wiley, U.K, Wiley, U.K, ISBN: 978-1-119-66977-7.

- 5. Srinivasan Chandrasekaran. 2020. Design of Marine Risers with Functionally Graded Materials, Woodhead Publishing, Elsevier, pp. 200, ISBN: 978-0128235379.
- 6. Srinivasan Chandrasekaran, 2020. Offshore Semi-Submersible Platform Engineering, CRC Press, Florida, pp. 240, ISBN: 978-0367673307.
- Srinivasan Chandrasekaran, 2019. Structural Health Monitoring with application to offshore structures, World Scientific Publishing Co, Singapore, ISBN: 978-971-12-0108-0.
- 8. Srinivasan Chandrasekaran, 2019. Advanced steel design of structures, CRC press, Florida, ISBN: 978-036-72-3290-0.
- Srinivasan Chandrasekaran, 2018. Advanced structural analysis with MATLAB, CRC Press, Florida, USA, ISBN: 978-036-70-2645-5.
- 10. Srinivasan Chandrasekaran, 2017. Dynamic analysis and design of ocean structures, Springer, 2nd Ed., Singapore. ISBN:978-981-10-6088-5.
- Srinivasan Chandrasekaran, and Gaurav Srivastava 2017. Design aids for offshore structures under special environmental loads including fire resistance, Singapore ISBN 978-981-10-7608-4.
- Srinivasan Chandrasekaran, 2016. Health, safety and Environmental Management for offshore and Petroleum Engineers, John Wiley and Sons, U.K., ISBN: 978-11-192-2184-5.
- Srinivasan Chandrasekaran, 2016. Offshore Structural Engineering: Reliability and Risk Assessment, CRC Press, Florida, ISBN: 978-14-987-6519-0.
- 14. Srinivasan Chandrasekaran, and A.K.Jain 2016. Ocean structures: Construction, Materials and Operations, CRC Press, Florida, ISBN: 978-149-87-9742-9.
- 15. Srinivasan Chandrasekaran, 2015. Advanced Marine structures, CRC Press, Florida (USA), ISBN 978-14-987-3968-9.
- 16. Srinivasan Chandrasekaran, 2015. Dynamic analysis and design of ocean structures, Springer, INDIA, ISBN: 978-81-322-2276-7.
- Srinivasan Chandrasekaran, 2014. Advanced Theory on Offshore Plant FEED Engineering, Changwon National University Press, Republic of South Korea, pp. 237. ISBN:978-89-969-7928-9.
- Srinivasan Chandrasekaran, Luciano Nunzinate Giorgio Seriino Federico Caranannate 2009. Seismic Design Aids for Nonlinear analysis of Reinforced Concrete Structures, CRC Press, Florida (USA), ISBN: 978-14-398-0914-3.
- Srinivasan Chandrasekaran, and Subrata Kumar Bhattacharyya 2012. Analysis and Design of Offshore Structures with illustrated examples. Human Resource Development Center for Offshore and Plant Engineering (HOPE Center), Changwon National University Press, Republic of Korea ISBN: 978-89-963-9155-5, pp. 285.

# **Books edited**

- Srinivasan Chandrasekaran, N. Madhavi Saravanakumar Sampath 2015. Advances in Structural Engineering, V. Matsagar (ed). Force Reduction on Ocean Structures with Perforated Members, pp. 647-661, DOI:978-81-322-2190-6\_52, © 2015, Springer.
- Srinivasan Chandrasekaran, N. Madhavi 2015. Advances in Structural Engineering, V. Matsagar (ed). Variations of Water Particle Kinematics of Offshore TLPS with Perforated Members: Numerical Investigations, pp. 629-645, DOI: 978-81-322-2190-6\_51, © 2015, Springer.
- 3. Chandrasekaran S, Shukla, SK Das, BB Kolathayar, S (Ed) 2020. Smart Technologies for Sustainable Development, Springer, ISBN: 978-981-15-5000-3.
- 4. Srinivasan Chandrasekaran, Shailendra Kumar and Seeram Madhuri (Eds) 2021. Recent advances in structural engineering, Springer, ISBN:978-981-33-6388-5.

# Publications in refereed journals (international)

- 1. Chandrasekaran, S. and Shanmukha Rao G. 2023. Postulated tendon failure of offshore triceratops, J. Marine Sc. And Appl., in Press.
- Chandrasekaran, S., Bharat Shah and Yogesh Chauhan. 2023. Tether response of offshore triceratops under hurricane conditions, Structures, 51:513-527, Q1 category, Impact factor 0.84.
- Chandrasekaran, S. and S. Pachaiappan 2023. Displacement-controlled non-linear analysis of offshore platform topside under accidental loads, Arabian Journal of Science and Engineering, Springer, https://doi.org/10.1007/s13369-022-07509-7, Q1 category, Impact Factor 0.47.
- Chandrasekaran S, Bharat Shah and Yogesh Chauhan 2022. Fatigue Assessment of Offshore Triceratops Restraining System under Hurricane-driven Metocean Conditions, International Journal of steel structures, https://doi.org/10.1007/s13296-022-00689-w, Q2 category, Impact factor 0.43.
- 5. S. Pachaippan, S. Chandrasekaran 2022. Numerical analysis of offshore topside with FGM under impact loads, J. Innovative Infrastructure Solutions, 7:195, Q2 category, Impact factor 0.51.
- 6. Srinivasan Chandrasekaran, S. Hari Murugaiyan Amirthalingam 2022. Functionally graded materials for marine risers by additive manufacturing for high-temperature applications: Experimental investigations, Structures, 35:931-938, Q1 category, Impact factor 0.84.

- Chandrasekaran S, Bharat Shah Yogesh Chouhan 2022. Dynamic analyses of Triceratops under Hurricane-drive Metocean conditions in Gulf of Mexico, Ocean Engineering, 256:111511, Q1 category, Impact factor 1.38.
- 8. Srinivasan Chandrasekaran, Sri Charan and VVS 2021. Time-domain analysis of a bean-shaped multi-body floating wave energy converter with a hydraulic power take-off using WEC-Sim, Energy, 223: 119985, Q1 category, Impact factor 2.04.
- 9. Chandrasekaran S, Sricharan V.V.S 2021. Numerical study of bean-float wave energy converter with float number parametrization using WEC-Sim in regular waves with the Levelized Cost of Electricity assessment for Indian sea states, Ocean Engineering, 237:109591, Q1 category, Impact factor 1.38.
- 10. Srinivasan Chandrasekaran, and Syed Azeem Uddin 2021. Dynamic analysis of semi-submerisble under postulated failure of restraining system with buoy, Intl. J. of Steel Structures, 21(1):118-31, Q2 category, Impact factor 0.43.
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