# SRES', Sanjivani College of Engineering, Kopargaon

(An Autonomous Institute affiliated to SPPU, Pune)

# **Staff Profile**

# **Personal Information**

Name of Teaching Staff: (Dr.) Atteshamuddin S. Sayyad

**Designation: Professor** 

**Department: Structural Engineering** 

Date of joining: 1st July, 2009



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# **Education Details**

Qualification	Specialization with Class or Grade	University	Year
UG	Civil Engineering	Pune University	2003
PG	Structural Engineering	Dr. B.A.M.U.	2006
Ph.D.	Structural Engineering	Dr. B.A.M.U.	2011

# **Total experience in years:**

Teaching:	16 years
Industry:	-

# **Research and Publications**

- 1) Sayyad A.S. and Avhad P. V. A new higher order shear and normal deformation theory for the free vibration analysis of sandwich curved beams. *Composite Structures* 280, 114948, 2022, **(SCI Indexed)** <a href="https://doi.org/10.1016/j.compstruct.2021.114948">https://doi.org/10.1016/j.compstruct.2021.114948</a>
- 2) Shinde B. M. and Sayyad A.S. A new higher order shear and normal deformation theory for FGM sandwich shells. *Composite Structures* 280, 114865, 2022, **(SCI Indexed)** <a href="https://doi.org/10.1016/j.compstruct.2021.114865">https://doi.org/10.1016/j.compstruct.2021.114865</a>
- 3) Shinde B. M. and Sayyad A.S. A new higher-order shear and normal deformation theory for the free vibration analysis of laminated shells. *Mechanics of Advanced Composite*

Structures, 2022, (Web of Science and SCOPUS Indexed) <a href="https://dx.doi.org/10.22075/macs.2022.22741.1327">https://dx.doi.org/10.22075/macs.2022.22741.1327</a>

4) Avhad P. V. and Sayyad A.S. On the deformation of laminated composite and sandwich curved beams. Curved and Layered Structures 9 (1), 1-12, 2022, **(SCI Indexed)** <a href="https://doi.org/10.1515/cls-2022-0001">https://doi.org/10.1515/cls-2022-0001</a>

#### **Year 2021**

- 5) Sayyad A.S. and Ghumare S.M. Thermomechanical Bending Analysis of FG Sandwich Plates Using a Quasi-Three-Dimensional Theory. ASCE *Journal of Aerospace Engineering*, 34 (3), 04021007, 2021, DOI: 10.1061/(ASCE)AS.1943-5525.0001249 (SCI Indexed)
- 6) Sayyad A.S. and Ghugal Y.M. Interlaminar Stress Analysis of Orthotropic Laminated Doubly-Curved Shells on Rectangular Planform under Concentrated Force. ASCE Journal of Aerospace Engineering, 34 (2), 04020116, 2021, DOI: 10.1061/(ASCE)AS.1943-5525.0001237 (SCI Indexed)
- 7) Sayyad A.S. and Ghugal Y.M. Static and free vibration analysis of doubly-curved functionally graded material shells. *Composite Structures*, 269 (2021) 114045. (SCI Indexed)
- 8) Sayyad A.S. and Ghugal Y.M. A unified five-degree-of-freedom theory for the bending analysis of softcore and hardcore functionally graded sandwich beams and plates. *Journal of Sandwich Structures & Materials*, 2021, Vol. 23(2) 473–506. (SCI Indexed)
- 9) Avhad P.V. and Sayyad A.S. Free vibration analysis of laminated curved beams using fifth-order shear and normal deformation theory. *Advances in Materials Processing and Manufacturing, Applications, Lecture Notes in Mechanical Engineering,* 319-326, https://doi.org/10.1007/978-981-16-0909-1\_32 (SCOPUS Indexed)
- 10) Sayyad A.S. and Ghugal Y.M. Bending, buckling, and vibration analysis of functionally graded nanobeams using an inverse trigonometric beam theory, *Int. J. Nano Dimens.*, 12 (2): 164-174, Spring 2021 (Web of Science Indexed)
- 11) Bharti M. Shinde and Atteshamuddin S. Sayyad, A new higher-order theory for the static and dynamic responses of sandwich FG plates. *Journal of Computational Applied Mechanics*, 2021, 52(1), 10.22059/jcamech.2020.313152.569 (SCOPUS Indexed)
- 12) Naik N.S. and Sayyad A.S. Higher-order Displacement Model for Cylindrical Bending of Laminated and Sandwich Plates Subjected to Environmental Loads. *Mechanics of Advanced Composite Structures*, 8 (2021) 185 201. (SCOPUS Indexed)

#### **Year 2020**

13) Sayyad A.S. and Ghugal Y.M. On the buckling analysis of functionally graded sandwich

- beams using a unified beam theory *Journal of Computational Applied Mechanics*51 (2), 443-453, 2020,DOI: 10.22059/jcamech.2020.310180.557 (Web of Science Indexed)
- 14) Sayyad A.S. and Ghugal Y.M. On the buckling of advanced composite sandwich rectangular plates *Journal of Sandwich Structures & Materials* 0(0), 1-30, 2020, DOI: 10.1177/1099636220925084 (SCI Indexed)
- 15) Sayyad A.S. and Ghugal Y.M. Bending, Buckling and Free Vibration Analysis of Size-Dependent Nanoscale FG Beams Using Refined Models and Eringen's Nonlocal Theory *International Journal of Applied Mechanics* 12 (1), 2050007, 2020, DOI: 10.1142/s1758825120500076, (SCI Indexed)
- 16) Sayyad A.S. and Ghugal Y. M. Stress analysis of laminated composite and sandwich cylindrical shells using a generalized shell theory. *Composite Materials and Engineering* 2 (2), 103-124, 2020.
- 17) Sayyad A.S. and Ghugal Y.M. Analytical solutions for the flexure analysis of advanced composite arches. *International Journal of Bridge Engineering* 8(1), 53-70 2020. (Web of Science Indexed)
- 18) Sayyad A.S. and Shaikh A.S. Estimation of deflections in cantilever and fixed castellated beams with hexagonal, square and circular opening. *TECNICA ITALIANA- Ittalian Journal of Engineering Science* 64(1), 118-127, 2020.
- 19) Avhad P.V. and Sayyad A.S. On the static deformation of FG sandwich beams curved in elevation using a new higher order beam theory. *Sādhanā*45 (1), 1-16,2020, DOI: 10.1007/s12046-020-01425-y, (SCI Indexed)
- 20) Shinde B.M. and Sayyad A.S. Thermoelastic analysis of laminated composite and sandwich shells considering the effects of transverse shear and normal deformations. *Journal of Thermal Stresses* 43 (10), 1234-1257, 2020,DOI: 10.1080/01495739.2020.1786484, (SCI Indexed)
- 21) Naik N.S. and Sayyad A.S. Analysis of laminated plates subjected to mechanical and hygrothermal environmental loads using fifth-order shear and normal deformation theory. *International Journal of Applied Mechanics* 12(3), 1-51, 2020, DOI: 10.1142/s1758825120500283, (SCI Indexed)
- 22) Shinde B.M. and Sayyad A.S. Analysis of laminated and sandwich spherical shells using new higher-order theory. *Advances in Aircraft and Spacecraft Science* 7(1), 19-40, 2020, DOI: 10.12989/AAS.2020.7.1.019, (SCOPUS Indexed)
- 23) Avhad P.V. and Sayyad A.S. Static analysis of functionally graded composite beams curved in elevation using higher-order shear and normal deformation theory. Materials Today: Proceeding, 21, 1195-1199, 2020, DOI: 10.1016/j.matpr.2020.01.069.(Web of Science, SCOPUS Indexed)
- 24) Naik N.S. and Sayyad A.S. 1-D Thermal analysis of laminated composite and sandwich

- plates using a new fifth-order shear and normal deformation theory. Materials Today: Proceeding, 21, 1084-1088, 2020, DOI: 10.1016/j.matpr.2020.01.009. (Web of Science, SCOPUS Indexed)
- 25) Ghumare S.M. and Sayyad A.S. Analytical solution using fifth-order shear and normal deformation theory for FG plates resting on elastic foundation subjected to hygrothermo-mechanical load. Materials Today: Proceeding, 21, 1089-1093, 2020, DOI: 10.1016/j.matpr.2020.01.010. (Web of Science, SCOPUS Indexed)
- 26) Shinde B.M. and Sayyad A.S. Static deformation of orthotropic spherical shell using fifth-order shear and normal deformation theory. Materials Today: Proceeding, 21, 1123-1127, 2020, DOI: 10.1016/j.matpr.2020.01.060. (Web of Science, SCOPUS Indexed)
- 27) Ghumare S.M. and Sayyad A.S. Analytical solutions for the hygro-thermo-mechanical bending of FG beams using a new fifth order shear and normal deformation theory *Applied and Computational Mechanics* 14(1), 2020, DOI: 10.24132/acm.2020.580, (SCOPUS Indexed)
- 28) Naik N.S. and Sayyad A.S. Higher-Order Displacement Model for Cylindrical Bending of Laminated and Sandwich Plates Subjected to Environmental Loads. *Mechanics of Advanced Composite Structures*2020, DOI: 10.22075/macs.2020.20242.1253, (SCOPUS Indexed)

- 29) Sayyad A.S. "Static and free vibration analysis of laminated composite and sandwich spherical shells using a generalized higher-order shell theory" *Composite Structure*, Vol. 219, 2019, 129-146, DOI: 10.1016/j.compstruct.2019.03.054, Impact Factor: 4.101.(SCI Indexed)
- 30) Sayyad A.S. and Ghugal Y.M. A sinusoidal beam theory for functionally graded sandwich curved beams. *Composite Structures* 226, 111246,2019, DOI: 10.1016/j.compstruct.2019.111246, (SCI Indexed)
- 31) Sayyad A. S. and Avhad P. "On the static bending, buckling and free vibration analysis of symmetric functionally graded sandwich beams" *Journal of Solid Mechanics*, Vol.11 (1), 2019, pp.166-180.DOI: 10.22034/JSM.2019.664227, (SCI Indexed)
- 32) Sayyad A. S. and Naik N. S. "New displacement model for accurate prediction of transverse shear stresses in laminated and sandwich rectangular plates", *ASCE Journal of Aerospace Engineering*, DOI: 10.1061/(ASCE)AS.1943-5525.0001074, (SCI Indexed)
- 33) Sayyad A.S. and Ghugal Y.M. "Modeling and analysis of functionally graded sandwich beams: A review". *Mechanics of Advanced Materials and Structures* 26 (21), 1776-1795, 2019, DOI: 10.1080/15376494.2018.1447178 Taylor and Francis, Impact Factor: 1.50,

(SCI Indexed)

- 34) Sayyad A.S. and Ghugal Y.M. "Effects of non-linear hygrothermomechanical loading on bending of FGM rectangular plates resting on two parameter elastic foundations using four unknown plate theory", *Journal of Thermal Stresses*, 42 (2), 213-232, 2019. DOI: 10.1080/01495739.2018.1469962., (SCI Indexed)
- 35) Ghumare S.M. and Sayyad A.S. Analysis of functionally graded plates resting on elastic foundation and subjected to non-linear hygro-thermo-mechanical loading. *JMST Advances*, 1, 233-248, 2019, (SCOPUS Indexed)
- 36) Ghumare S.M. and Sayyad A.S. Nonlinear Hygro-Thermo-Mechanical Analysis of Functionally Graded Plates Using a Fifth-Order Plate Theory *Arabian Journal for Science and Engineering* 2019, DOI: 10.1007/s13369-019-03894-8, (SCI Indexed)
- 37) Ghumare S.M. and Sayyad A.S. "A new quasi 3D model for functionally graded plates" *Journal of Applied and Computational Mechanics*, 5 (2), 2019, 367-380.DOI: 10.22055/JACM.2018.26739.1353, (Web of Science, SCOPUS Indexed)
- 38) Nikam R. D. and Sayyad A. S. "A unified nonlocal formulation for bending, buckling and free vibration analysis of nanobeams" Mechanics of Advanced Materials and Structures, Taylor and Francis, 2019 pp.1-10, DOI: 10.1080/15376494.2018.1495794., (SCI Indexed)
- 39) Naik N. S. and Sayyad A. S. "An accurate computational model for thermal analysis of laminated composite and sandwich plates." *Journal of Thermal Stresses*, Taylor and Francis, Vol. 42 (5), pp.559-579, 2019, DOI: 10.1080/01495739.2018.1522986, (SCI Indexed)
- 40) Sayyad A.S. and Shaikh A.S. "Structural Analysis of Castellated Beam in Cantilever & Fixed Action." Journal of Emerging Technologies and Innovative Research 6 (5), 114-119, 2019.

- 41) Sayyad A.S. and Ghugal Y.M. Analytical solutions for bending, buckling, and vibration analyses of exponential functionally graded higher order beams" Asian Journal of Civil Engineering, Vol.5, 2018, pp.1-17.DOI: 10.1007/s42107-018-0046-z, (SCOPUS Indexed)
- 42) Sayyad A.S. and Ghugal Y.M. An inverse hyperbolic theory for FG beams resting on Winkler-Pasternak elastic foundation" *Advances in Aircraft and Spacecraft Science*, 5(6), 2018, 671-689. DOI: 10.12989/aas.2018.5.6.671, (SCOPUS Indexed)
- 43) Sayyad A.S. and Ghugal Y.M. "Effect of thickness stretching on the static deformations, natural frequencies, and critical buckling loads of laminated composite and sandwich

- beams," 2018, *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 40(6), 2018, 1-16, DOI: 10.1007/s40430-018-1222-5, (SCI Indexed)
- 44) Sayyad A. S. and Ghugal Y.M. "Bending of shear deformable plates resting on Winkler foundations according to trigonometric plate theory" *Journal of Applied Computational Mechanics*, Vol.4 (3), 2018, pp. 187-201.DOI: 10.22055/JACM.2017.23057.1148, (Web of Science, SCOPUS Indexed)
- 45) Sayyad A.S. and Ghugal Y.M. "Bending, buckling and free vibration responses of hyperbolic shear deformable FGM beams," *Mechanics of Advanced Composite Structures*, Impact Factor 0.64, 2018, Vol. 5, pp.13-24., (SCOPUS Indexed)
- 46) Naik N. S. and Sayyad A. S. 1D analysis of Laminated composites and Sandwich Plates using a new fifth order plate theory, *Latin American Journal of Solids and Structures*, Impact Factor 1.114, 2018, Vol.15, Issue 1,pp.1-17., (Web of Science, SCOPUS Indexed)
- 47) Naik N. S. and Sayyad A. S. "2D analysis of laminated composite and sandwich plates using new fifth order theory." *Latin American Journal of Solids and Structure*, Vol 15 (9), 114-125, 2018. DOI: 10.1590/1679-78254834, Impact factor: 1.411., (Web of Science, SCOPUS Indexed)
- 48) Shinde P.N., Patankar S.V and Sayyad A.S. "Investigation on effects of fineness of flyash and alkaline ratio on mechanical properties of geopolymer concrete." Research on Engineering Structures & Materials 4 (1), 61-71, 2018.

- 49) Sayyad A.S. and Ghugal Y.M. "Bending, buckling and free vibration of laminated composite and sandwich beams: A critical review of literature." *Composite Structures*, Vol. 171, pp. 486-504, 2017. DOI: 10.1016/j.compstruct.2017.03.053, Elsevier, Impact Factor: 3.858., (SCI Indexed)
- 50) Sayyad A. S. and Ghugal Y. M. "On the free vibration of angle-ply laminated composite and soft core sandwich plates." *Journal of Sandwich Structures and Materials*, 19(6), 2017, 679–711, DOI: 10.1177/1099636216639000, Sage Publication, Impact Factor: 5.616., (SCI Indexed)
- 51) Sayyad A.S. and Ghugal Y.M. "A Unified Shear Deformation Theory for the Bending of Isotropic, Functionally Graded, Laminated and Sandwich Beams and Plates". *International Journal of Applied Mechanics*, Vol. 9, No. 1, pp. 1-36, 2017. DOI: 10.1142/S1758825117500077, World Scientific, Impact Factor: 1.954., (SCI Indexed)
- 52) Shinde B. M. and Sayyad A. S. "A Quasi- 3D Polynomial shear and normal deformation theory for laminated composite, sandwich and functionally graded beams," Mechanics of Advanced Composite Structures, 2017, Vol.4, pp.139-152.DOI:

# 10.22075/macs.2017.10806.1105, (SCOPUS Indexed)

- 53) Ghumare S. M. and Sayyad A. S. A new fifth-order shear and normal deformation theory for static bending and elastic buckling of P-FGM beams. *Latin American Journal of Solids and Structures*, Vol 15 (9), 114-125, 2017. DOI: 10.1590/1679-78253972 Impact factor: 1.411.,(Web of Science, SCOPUS Indexed)
- 54) Nikam R. D. and Sayyad A. S. "Free vibration of functionally graded nanobeams using a new nonlocal trigonometric shear deformation theory." International Conference on Composite Materials and Structures 1 (1), 1-7, 2017.
- 55) Sayyad A.S. and Ghugal Y.M. "Single variable refined beam theories for the bending, buckling and free vibration of homogenous beams." *Applied and Computational Mechanics*, Vol.10, pp.123–138, 2016.(SCOPUS Indexed)

#### **Year 2016**

- 56) Sayyad A.S., Shinde B.M. and Ghugal Y.M. Bending, "Vibration and Buckling of Laminated Composite Plates Using a Simple Four Variable Plate Theory." *Latin American Journal of Solids and Structures*, Vol. 13, pp. 516-535, 2016. DOI: 10.1590/1679-78252241, Impact Factor: 1.411, (Web of Science, SCOPUS Indexed)
- 57) Sayyad A. S. and Ghugal Y. M. "Cylindrical bending of multi-layered composite laminates and sandwiches". *Advances in Aircraft and Spacecraft Sciences*, Vol. 3, No. 2 pp. 113-148, 2016. DOI: 10.12989/aas.2016.3.2.113, Techno Press Publication.(SCOPUS Indexed)
- 58) Sayyad A.S., Shinde B.M. and Ghugal Y.M. "Thermal stress analysis of laminated composite plates using exponential shear deformation theory." *International Journal of Automotive Composites*, Vol. 2, No. 1 pp. 23-40, 2016, DOI: 10.1504/ijautoc.2016.078100, (SCOPUS Indexed)

- 59) Sayyad A. S. and Ghugal Y. M. "On the free vibration analysis of laminated composite and sandwich plates: A review of recent literature with some numerical results." *Composite Structures*, Vol. 129, pp. 177-201, 2015. DOI: 10.1016/j.compstruct.2015.04.007, Elsevier, Impact Factor: 3.858., (SCI Indexed)
- 60) Sayyad A. S. and Ghugal Y. M. "A Four Variable Plate Theory for Thermo-elastic Bending Analysis of Laminated Composite Plates." *Journal of Thermal Stresses*, Vol.38, pp. 904–925, 2015. DOI: 10.1080/01495739.2015.1040310, Taylor and Francis, Impact Factor: 1.169., (SCI Indexed)
- 61) Sayyad A. S. and Ghugal Y. M. "A *n*th-order shear deformation theory for composite laminates in cylindrical bending." *Curved and Layered Structures*, Vol. 2, No. 1, pp. 290–300, 2015.DOI: 10.1515/cls-2015-0016, (Web of Science, SCOPUS Indexed)

- 62) Sayyad A. S., Ghugal Y. M. and Naik N. S. "Bending analysis of laminated composite and sandwich beams according to refined trigonometric beam theory." *Curved and Layered Structures.* Vol. 2, No. 1, pp. 279-289, 2015.DOI: 10.1515/cls-2015-0015, (Web of Science, SCOPUS Indexed)
- 63) Sayyad A.S., Shinde B.M. and Ghugal Y.M. "Thermo-elastic Bending Analysis of Laminated Composite Plates According to Various Shear Deformation Theories." *Open Engineering* (formerly Central European Journal of Engineering) Vol. 5, No. 1, pp. 18-30, 2015.DOI: 10.1515/eng-2015-0004
- 64) Sayyad A.S., Ghugal Y.M. and Shinde P.N. "Stress analysis of laminated composite and soft core sandwich beams using a simple higher order shear deformation theory," *Journal of the Serbian Society for Computational Mechanics.* Vol. 9, No. 1, pp. 15-35, 2015.DOI: 10.5937/jsscm1501015S, (SCOPUS Indexed)
- 65) Sayyad A. S. and Ghugal Y. M. "Static Flexure of Soft Core Sandwich Beams using Trigonometric Shear Deformation Theory," *Mechanics of Advanced Composite Structures*. Vol. 2, pp. 45-53, 2015, DOI: 10.22075/macs.2015.331, (SCOPUS Indexed)
- 66) Shinde B. M., Sayyad A. S. and Ghumare S. M., "A refined shear deformation theory for bending analysis of isotropic and orthotropic plates under various loading conditions," *Journal of Materials and Engineering Structures*, vol.2, pp. 3-15, 2015., (Web of Science Indexed)
- 67) Sayyad A. S., Ghumare S. M., B. M. Shinde and Naik N. S., "Cylindrical bending of laminated composite plates using refined shear deformation theory", *Journal of Applied and Experimental Mechanics*, Vol.1 (1), pp. 10-17, 2015.

- 68) Sayyad A. S. and Ghugal Y. M., "On the Buckling of Isotropic, Transversely Isotropic and Laminated Composite Rectangular Plates," *International Journal of Structural Stability and Dynamics.* Volume 14, No. 6, 2014, pp. 1- 32.DOI: 10.1142/S0219455414500205 World Scientific, Impact Factor: 1.617., (SCI Indexed)
- 69) Sayyad A. S. and Ghugal Y. M. "Buckling and Free Vibration Analysis of Orthotropic Plates by using Exponential Shear Deformation Theory" *Latin American Journal of Solids and Structures*, Vol.11, No. 8, pp. 1298-1314, 2014.DOI: 10.1590/S1679-78252014000800001, Impact Factor: 1.411, (Web of Science, SCOPUS Indexed)
- 70) Sayyad A. S. and Ghugal Y. M. "Flexure of Cross-ply Laminated Plates using Equivalent Single Layer Trigonometric Shear Deformation Theory," Structural Engineering and Mechanics, An International Journal, Vol. 51, No. 5, pp. 867-891, 2014. DOI: 10.12989/sem.2014.51.5.867, Techno Press Impact Factor: 1.118.(Web of Science, SCOPUS Indexed)

- 71) Sayyad A. S. and Ghugal Y. M. "A New Shear and Normal Deformation Theory for Isotropic, Transversely Isotropic, Laminated Composite and Sandwich Plates" *International Journal of Mechanics and Materials in Design.* Vol. 10, No. 3, pp. 247-267, 2014. DOI: 10.1007/s10999-014-9244-3, Springer, Impact Factor: 2.102., (SCI Indexed)
- 72) Sayyad A. S., Ghugal Y. M. and R.R. Borkar "Flexural Analysis of Fibrous Composite Beams under Various Mechanical Loadings using Refined Shear Deformation Theories" *Composites: Mechanics, Computations Applications. An International Journal*, Vol. 5, No. 1, pp. 1-19, 2014.DOI: 10.1615/CompMechComputApplIntJ.v5.i1.10, (SCOPUS Indexed)
- 73) Sayyad A. S., Ghumare S.M. and Sasane S.T. "Cylindrical bending of orthotropic plate strip based on *n*th-order plate theory" *Journal of Materials and Engineering Structures*, Vol. 1, pp. 47–57, 2014. (Web of Science Indexed)
- 74) BA Mhaske, KB Ladhane, VR Rathi, AS Sayyad, "Effect of uniformly distributed thermal load on bending response of isotropic plates using two variable plate theory." International Journal of Applied Mathematics and Mechanics 10 (5), 1-21

- 75) Ghugal Y. M. and Sayyad A. S. "Stress Analysis of Thick Laminated Plates using Trigonometric Shear Deformation Theory" *International Journal of Applied Mechanics*, Vol. 5, No. 1, pp. 1-23, 2013. DOI: 10.1142/S1758825113500038, World Scientific, Impact Factor: 1.954. (SCI Indexed)
- 76) Ghugal Y. M. and Sayyad A. S., "Static Flexure of Thick Orthotropic Plates Using Trigonometric Shear Deformation Theory", *Journal of Structural Engineering*, 2013, 39(5), pp. 512-521,
- 77) Sayyad A. S. "Flexure of thick orthotropic plates by exponential shear deformation theory" *Latin American Journal of Solids and Structures*, Vol.10, pp. 473-490, 2013. DOI: 10.1590/S1679-78252013000300002, Impact Factor: 1.411, (Web of Science, SCOPUS Indexed)
- 78) Sayyad A. S. and Ghugal Y. M. "Effect of Stress Concentration on Laminated Plates" *Cambridge Journal of Mechanics*, 29(2), 2013, 241-252. DOI: 10.1017/jmech.2012.131, Cambridge University Press, Impact Factor: 0.819. (SCOPUS Indexed)
- 79) Sayyad A.S., Shinde B.M. and Ghugal Y.M. "Thermo-elastic Bending Analysis of Orthotropic Plates using Hyperbolic Shear Deformation Theory. *Composites: Mechanics, Computations Applications. An International Journal*, Vol. 4, No. 3, pp. 257-278, 2013. *DOI:* 10.1615/CompMechComputApplIntJ.v4.i3.50, (SCOPUS Indexed)
- 80) Sayyad A.S. and Patankar S.V. "Effect of Steel Fibres and Low Calcium Fly Ash on

- Mechanical and Elastic Properties of Geopolymer Concrete Composites" *Indian Journal of Materials Science*, Vol. 2013, pp. 1-8, 2013. DOI: 10.1155/2013/357563, (SCOPUS Indexed)
- 81) Sayyad A.S. and Patankar S.V. Effect of Stirrups Orientation on Flexural Response of RC Deep Beams. *American Journal of Civil Engineering and Architecture,* Vol. 1, No. 5, pp. 107-111, 2013.
- 82) Shinde B. M., Sayyad A. S., and Kawade A. B. "Thermal analysis of isotropic plates using hyperbolic shear deformation theory", *Applied and Computational Mechanics*, Vol.7, pp. 193-204, 2013, (SCOPUS Indexed)
- 83) BM Shinde, AB Kawade, AS Sayyad, "Thermal response of isotropic plates using hyperbolic shear deformation theory." International Journal of Advanced Technology in Civil Engineering 2 (1), 140-145, 2013

- 84) Sayyad A. S. and Ghugal Y. M. "Bending and Free Vibration Analysis of Thick Isotropic Plates by using Exponential Shear Deformation Theory" *Applied and Computational Mechanics*, Vol.6, No. 1, pp. 65-82, 2012.(SCOPUS Indexed)
- 85) Sayyad A. S. and Ghugal Y. M. "Buckling Analysis of Thick Isotropic Plates by using Exponential Shear Deformation Theory" *Applied and Computational Mechanics*, Vol. 6, No. 2, pp. 185-196, 2012. (SCOPUS Indexed)
- 86) Sayyad A. S. "Static flexure and free vibration analysis of thick isotropic beams using different higher order shear deformation theories" *International Journal of Applied Mathematics and Mechanics*, Vol. 8, No. 14, pp. 71-87, 2012.
- 87) UP Naik, AS Sayyad, PN Shinde, "Refined beam theory for bending of thick beams subjected to various loading." Elixir Appl. Math 43, 7004-7015, 2012

- 88) Sayyad A. S. and Ghugal Y. M. Flexure of thick beams using new hyperbolic shear deformation theory. International Journal of Mechanics 5 (3), 113-122.(SCOPUS Indexed)
- 89) Ghugal Y. M. and Sayyad A. S. "Free Vibration of Thick Orthotropic Plates using Trigonometric Shear Deformation Theory". *Latin American Journal of Solids and Structures*, Vol. 8, No. 3, pp. 229-243, 2011. Impact Factor: 1.411, (Web of Science, SCOPUS Indexed)
- 90) Sayyad A. S. and Ghugal Y. M. "Cylindrical Bending of Thick Orthotropic Plates using Trigonometric Shear Deformation Theory" *International Journal of Applied Mathematics and Mechanics*, Vol. 7, No. 5, pp. 98-116, 2011.

- 91) Sayyad A. S. and Ghugal Y. M. "Effect of Transverse Shear and Transverse Normal Strain on Bending Analysis of Cross-Ply Laminated Beams" *International Journal of Applied Mathematics and Mechanics*, Vol. 7, No. 12, pp. 85-118, 2011.
- 92) Sayyad A. S. "Comparison of various refined beam theories for the bending and free vibration analysis of thick beams" *Applied and Computational Mechanics*, Vol. 5, pp. 217–230, 2011.
- 93) Sayyad A. S. "Comparison of various shear deformation theories for the free vibration of thick isotropic beams" *International Journal of Civil and Structural Engineering*, Vol. 2, No 1, pp. 85-97, 2011.
- 94) Ghugal Y. M. and Sayyad A. S., "Free Vibration of Thick Isotropic Plates Using Trigonometric Shear Deformation Theory", *Journal of Solid Mechanics*, 2011, 3(2), pp. 172-182.(Web of Science Indexed)

95) Ghugal Y. M. and Sayyad A. S., "A Static Flexure of Thick Isotropic Plates Using Trigonometric Shear Deformation Theory", *Journal of Solid Mechanics*, 2010, 2(1), pp. 79-90. (Web of Science Indexed)

# **Book Chapters:**

Sr. No.	Name of Author	Title of Book Chapter	Title of Book	Publisher	Page No.
1	Shinde B M and Sayyad A S	Free vibration analysis of laminated composite spherical shells: An analytical	Technologies for sustainable development	Taylor and Francis ISBN: 978-0- 367-33737-7	51- 56
2	Shinde B M and Sayyad A S	approach  Bending of FGM plates using four variable shear deformation theory", Advances in concrete, structural and Geotechnical	Advances in concrete, structural and Geotechnical Engineering	Bloomsbury India ISBN-10: 9387471691, ISBN-13:978- 9387471696	145- 150
3	Naik NS and Sayyad A S	Engineering  2D analysis of composite laminates using fifth-order shear and normal	Advances in Concrete, Structural & Geotechnical	Bloomsbury India ISBN-10: 9387471691,	437-441

		deformation theory	Engineering	ISBN-13:978- 9387471696		
4	Ghumare SM	Bending of FGM	Advances in	Bloomsbury	229-	
	and Sayyad A S	plates using fifth	Concrete,	India	233	
		order shear and	Structural &	ISBN-10:		
		normal deformation	Geotechnical	9387471691,		
		theory	Engineering	ISBN-13:978-		
				9387471696		

# Papers presented in conferences:

Sr	Author	Title of Paper	Name of	Date and Venue
No.			Conference	
1	Sayyad A.S. and	Comparative Study of Refined Beam Theories	Proceeding of Seventh Structural	December, 2010
	Ghugal Y.M.	for Static Flexure of Deep Beams	Engineering Convention (SEC-2010)	Annamalai university, Annamalainagar, T.N.
2	Sayyad A.S. and Ghugal Y.M.	Static Flexure of Thick Isotropic Plates Using Trigonometric Shear Deformation Theory	Proceeding of International conference on Innovative world of Structural Engineering (ICIWSE-2010)	25th -27th December, 2010 Government College of Engineering, Aurangabad, M.S.
3	Shinde B.M. and Sayyad A.S	Free vibration analysis of laminated composite spherical shells- an analytical approach	7th Nirma University International conference on Engineering (NUiCONE -2019)	21st to 22nd Nov 2019 at Nirma University, Ahemedabad
4	Naik. N.S., Sayyad A.S.	1D Thermal Analysis of Laminated Composite and Sandwich Plates using a new fifth order shear and normal deformation theory.	6th International Conference on recent advances in composite materials. (IRACM- 2019), IIT Varanasi	25th -28th Feb 2019 at IIT Varanasi
5	Ghumare S. M., Sayyad A.S.	Analytical solution using fifth order shear and normal deformation theory for FG plates resting on elastic foundation subjected to hygro-thermomechanical loading.	6th International Conference on recent advances in composite materials. (IRACM- 2019), IIT Varanasi	25th -28th Feb 2019 at IIT Varanasi
6	Shinde	Analytical solution using	6th International	25th -28th Feb 2019

	B.M. ,	fifth order shear and	Conference on	at IIT Varanasi	
	Sayyad	normal deformation	recent advances in		
	A.S.	theory for FG plates resting on elastic	composite materials. (IRACM-		
		foundation subjected to	2019), IIT Varanasi		
		hygro-thermo-	-		
<u>                                     </u>		mechanical loading		261 71	
7	Naik N.S.,	2D analysis of composite laminates using fifth-	Advances in	26th to 28th Feb 2008 at Bits Pilani	
	Sayyad A.S.	order shear and normal	concrete, structural and Geotechnical	2000 at Dits Filalli	
		deformation theory	Engineering (ACSGE		
		•	2018), International		
			Conference at Bits Pilani.		
8	Ghumare	Bending of FGM plates	Advances in	26th to 28th Feb	
	S.M, Sayyad	using fifth order shear and normal deformation	concrete, structural and Geotechnical	2008 at Bits Pilani	
	A.S.	theory	Engineering (ACSGE		
			2018), International		
			Conference at Bits		
	Chiala	Dead's a C DCM alara	Pilani.	261 4 201 51	
9	Shinde B.M,	Bending of FGM plates using four variable shear	Advances in concrete, structural	26th to 28th Feb 2008 at Bits Pilani	
	Sayyad	deformation theory	and Geotechnical	2000 at bits I ham	
	A.S.,	·	Engineering (ACSGE		
			2018), International		
			Conference at Bits Pilani.		
		Research	Profile URL		
Goog	gle Scholar	1 // 0 0	.com/citations?user=D0	CsBaTUAAAAJ&hl=en	
Scop	us	Scopus Author ID: 42 https://www.scopus.c	462330800 om/authid/detail.uri?a	uthorId=42462330800	
Orcio	d	https://orcid.org/000			
publ	ons		archer ID: 0-2748-201 researcher/1479756/at		
	Other Research Details				
		PhD Guide: Yes Field:			
	Guide ?Give & University	Bending, buckl     sandwich, function	ing, vibration of lonally graded beams, pl	•	
	Jan Cibity	Analysis of nanos	, ,		
Thermal analysis of composite structures					

	University: SPPU, Pune				
	05				
	Name of Student	Status			
	Dr. Shantaram M. Ghumare	Viva Defended on 14/9/2020			
	Dr. Nitin S. Naik	Viva Defended on			
Ph Ds/ Projects		27/10/2020			
Guided:	Mr. Rohit D. Nikam	Under progress			
	Dr. Bharti M. Shinde	Viva Defended on			
		16/12/2021			
	Dr. Pravin V. Avhad	Viva Defended on			
		07/01/2022			
		0.70=7=3==			
<b>Books Published</b>	-				
	Patent Granted: 08				
	1. Surveying Instrument.				
	Certificate No: 55964				
	Design No.: 284335				
	Date of Issue: 20/06/2017				
	2. Magnetic Wind Turbine				
	Certificate No: 70096				
	Design No.: 299625				
	Date of Issue: 22/1/2019				
	3. Castellated Beam				
	Certificate No: 76780				
	Design No.: 311580				
	Date of Issue: 1/7/2019				
	4. Support Assembly for Beam Testing				
IPRs/Patents	Certificate No:78652				
,	Design No.: 304777				
	Date of Issue:22/7/2019				
	5. Equipment of Direct Central Impact				
	Certificate No: 77285				
	Design No.: 302568				
	Date of Issue: 4/7/2019 <b>6. Castellated beams</b>				
	Certificate No: 81020				
	Design No.: 310949				
	Date of Issue: 9/9/2019				
	7. Castellated beams				
	Certificate No: 85554				
	Design No.: 310961				
	Date of Issue: 28/1/2020				
	8. Air Purifier				

	Certificate No: 78077 Design No.: 317590 Date of Issue: 16/7/2019
Professional Memberships:	<ul> <li>Member of Institute of Engineers India</li> <li>Life Member of Indian Society of Technical Education (ISTE)</li> </ul>
Interaction with professional institutions	

# **Consultancy Activities**

Duration	Title of Activity	Issued Organization	Amount
	-		

#### Grants fetched

Duration	Title	Issued Organization	Amount
2013-2015	Experimental Investigation on Reinforced Geopolymer Deep Beam	BCUD, SPPU Pune	Rs. 1, 40, 000/-

#### **Awards**

- 1. **"Engineering Achievement Award"** 2017, Institute of Engineers Kolkata, Local Centre (Ahmednagar).
- 2. **Outstanding Reviewer of the Year** 2018 (International Journal of Mechanical Sciences- Elsevier)
- 3. **Outstanding Reviewer of the Year 2017** (Applied Acoustics- Elsevier)
- 4. **Outstanding Reviewer of the Year 2017** (Composites Part B- Elsevier)

#### **Reviewer of the International Journals**

- 1) Journal of Aerospace Engineering (ASCE)
- 2) Composites Part B-Engineering (Elsevier)
- 3) Composite Structures (Elsevier)
- 4) Applied Acoustics (Elsevier)
- 5) International Journal of Mechanical Sciences (Elsevier)
- 6) Materials and Design (Elsevier)
- 7) Applied Mathematical Modelling (Elsevier)
- 8) European Journal of Mechanics A/Solids (Elsevier)
- 9) International Journal of Applied Mechanics (World Scientific)
- 10) Mechanics of Advanced Materials and Structures (Taylor & Francis)
- 11) Journal of Mechanical Science and Technology (Springer)
- 12) International Journal of Structural stability and Dynamics (World Scientific)
- 13) Journal of the Brazilian Society of Mechanical Sciences and Engineering (Springer)
- 14) Meccanica (Springer)

FACULTY DEVELOPMENT PROGRAMMES ATTENDED			
Name of the FDP / Workshop	Organization	Duration	Month-Year
Intellectual Property Rights (IPR)-Process and Procedure in India	Sanjivani College of Engineering, Kopargaon	Two days 17 <sup>th</sup> – 18 <sup>th</sup> Jan 2020	Jan 2020
Present Scenario of Treatment of Waste in India	Sanjivani College of Engineering, Kopargaon	Two Weeks 13 <sup>th</sup> - 25 <sup>th</sup> Nov 2017	Nov 2017
Civil Post Graduate Conference 2016 (Chair Person)	AISSMS College of Engineering Pune	Two days 9 <sup>th</sup> - 10 <sup>th</sup> June 2016	June 2016
Analysis & Design of Civil Engineering Structures Under static & dynamic loading (Keynote Speaker)	Amrutvahini College of Engineering, Sangamner	Two days 27 <sup>th</sup> -28 <sup>th</sup> Jan 2016	2016
Introduction to Finite Element Methods and Its Engineering Applications	Sanjivani College of Engineering, Kopargaon	Two days 9 <sup>th</sup> - 10 <sup>th</sup> Dec 2016	Dec. 2016
Finite Element and Analytical Solutions for Composite Laminates	Sanjivani College of Engineering, Kopargaon	One Week	2015
Finite element methods for engineering application	Sardar Vallabhbhai National Institute of Technology, Surat	One Week Nov 30 – Dec. 4, 2015	Dec. 2015

Recent Trends in Earthquake Engineering	Pravara Rural Engineering College Loni-413736		Two days 20 <sup>th</sup> -21 <sup>st</sup> Feb 2014	2014		
FACULTY DEVELOPMENT PROGRAMMES ORGANIZED						
Name of the FDP / Workshop	Organization	Duration	Month-Year	Capacity		
Strategies to improve R and D activities in Engineering Institutes	Dept. Of Structural Engineering SCOE Kopargaon	5 days	September 2020	83		
Finite Element and Analytical Solutions for Composite Laminates	Sanjivani College of Engineering, Kopargaon	05 Days	Nov. 2015	55		
I	INVITED LECTURES IN CONFERENCE/SEMINAR					
Title of Lecture/ Academic Session	Title of Conference/ Seminar etc.		Organized By			
Research Methodology	Two days workshop on Research Methodology		P.R.E.C., Loni			
How to Write Technical Paper	Invited Lecture		Amrutvahini Polytechnic, Sangamner			
Finite Element Analysis	One week workshop on FEM		P.D.V.V.P. C.O.E, Ahmednagar			
Theory of Plates and Shells	One week workshop on TPS		D.Y. Patil College of Engineering, Pune			
Plastic Analysis of Beams and Frames	Invited Lecture series		K.K.W. Co Engineering N	ollege of asik		
Advanced Solid Mechanics	Invited Lecture series		K.K.W. Co Engineering N	ollege of asik		
Theory of Plates and Shells	Invited Lecture series		K.K.W. College of Engineering Nasik			
Analysis & Design of Civil Engineering Structures Under static & dynamic	Two days national conference on "Analysis & Design of Civil Engineering Structures Under static & dynamic loading"		Amrutvahini College of Engineering, Sangamner 27 <sup>th</sup> -28 <sup>th</sup> Jan 2016			

loading			
Guidelines for NBA Accreditation Process	Invited Lecture	NDMVP College of Engineering, Nasik	
Preparation of NAAC, Research paper presentation and publication	Invited Lecture	Maulana Mukhtar Ahmad Nadvi Technical Campus Malegaon Nashik	
Guideline for research publication	Two days conference on "Research proposal, Paper, IPR and Patent Drafting"	PIMPRI Chinchwad College of Engineering and Research, Pune 9 <sup>th</sup> Dec 2017	

	OTHER Professional URLs
Personal Website	-
Linked In Profile	-
GitHub URL	-
YouTube Channel	https://www.youtube.com/channel/UCp66i_tIW1vxg0F0-nNAjYA
Other	Researchgate Profile https://www.researchgate.net/profile/Atteshamuddin-Sayyad-2

**Any Other:**