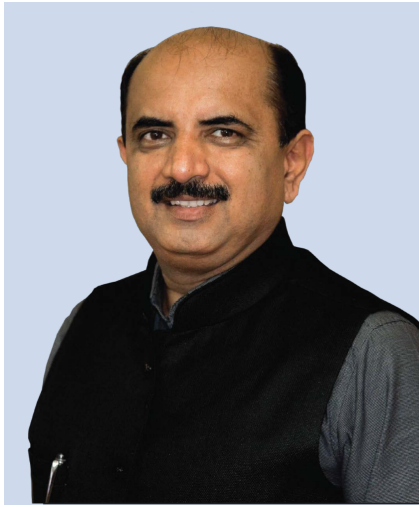


Er. VIKAS S. PATIL

+91 94225 22689 | +91 73500 04161 | saviinfra@gmail.com



PROFESSIONAL DETAILS

Principle Consultant: Savi Designers & Consultants

Managing Director: Savi Infrastructures & Properties Pvt. Ltd.

Location: 903, Laxminarayan Sankul, Above Bank of India, Off. Sinhagad Road, Pune – 411030

Ph. No.: +91 20242 54151

Website: www.saviinfra.com

Date Of Birth: 18th November 1970

Place Of Birth: Amalner, Dist. Jalgaon, Maharashtra

PROFESSIONAL ASSOCIATIONS

- Fellow of Indian Geotechnical Society
- Fellow of International Society for Soil Mechanics and Geotechnical Engineering
- Life Member of Indian Society of Technical Education
- Member of Builders Associations of India
- Patron Member of Architect Engineers and Surveyors Association (AESA)
- Academic Expert of DPPC of PG-Geotechnical Engineering,
- Government College of Engineering, Pune

EDUCATION

Master of Engineering Civil, Geotechnical Engineering, Government College of Engineering Pune, University of Pune, India, 2000

Bachelor of Engineering Civil Engineering, Maharashtra Institute of Technology, Pune, University of Pune, India, 1991

EXTRA CURRICULAR ACTIVITIES

- Served National Cadet Corps (NCC) – 1985-1987
- Registered member of Maharashtra State Bharat Scouts & Guides

ABOUT MYSELF

Vikas S. Patil is a first-generation entrepreneur who holds a postgraduate degree in civil engineering with a specialization in geotechnical engineering. He is an alumnus of the Government College of Engineering Pune.

After completing his education, Vikas initially worked as a faculty member at the Government College of Engineering Pune for ten years. During his time in academia, he focused on promoting industry-

institute interaction and incorporating practical societal needs into the academic curriculum at both the institute and university levels.

Driven by his passion for disseminating engineering knowledge to society, Vikas eventually ventured into entrepreneurship. He introduced innovative technologies such as GraviLoft Retaining Wall Technology and a new design approach for culverts. These advancements have greatly benefited society, the general public, the nation, and the environment. Not only have they reduced construction costs, but they have also enhanced stability and optimized the use of natural resources in the construction industry.

MAJOR ACHIEVEMENTS

SOCIAL RECOGNITION

- **Member, Board of Governance, College of Engineering, Pune** (An autonomous institute of Government of Maharashtra) (Government Nomination)
- **Chairman, Pune Chapter, Indian Geotechnical Society**

ACADEMICS

- Recognised Post Graduate Teacher in Civil Engineering by University of Pune for the period 2001 to 2006 and Have Guided Post Graduate students.

PROFESSIONAL

GOVERNMENT/SEMI-GOVERNMENT SECTOR

- **National Highway Authority of India (NHAI)**
 - Consultant for Golden Quadrilateral Project (Part of NH-4)
 - Executed design build GraviLoft retaining wall for approximately 5 Km at Khed – Manchar, Pune
 - Executed design build GraviLoft retaining wall for approximately 2.5 Km at Chandani Chowk, Pune
 - Executed design build GraviLoft retaining wall for approximately 10 Km at Bhandara, Nagpur
- **Maharashtra Samruddhi Mahamarg**
 - Executed design build GraviLoft retaining wall for approximately 2.5 Km at Kopergaon
- **Chhattisgarh PWD (National Highway & Bridge), Raipur**
 - Consultant for ROB projects
- **Maharashtra State Road Development Corporation (MSRDC)**
 - Consultant for Infrastructural work
- **Maharashtra Public Works Department (PWD)**
 - Consultant for ROB and infrastructural works
- **Maharashtra Irrigation Department**
 - Consultant for Design of wing walls/retaining walls

- **Maharashtra Industrial Development Corporation (MIDC)**
 - Consultant for 16 Km long retaining wall construction for Flouriculture Park, Talegaon, Pune

.... And so on (list incomplete)

CORPORATE SECTOR

- **Lodha Group, Mumbai**
 - Executed design build GraviLoft retaining wall for approximately 8.5 Km at Dombivali, Dahisar, Mumbai
- **Tata Housing Development Company Ltd.**
 - Executed design build GraviLoft retaining wall for approximately 2.5 Km at Lonavala, Pune
- **Peninsula Land Ltd.**
 - Executed design build GraviLoft retaining wall at Nashik, Mumbai, Lonavala, and Pune for approximately 4.5 Km
- **Ganesh Bhintade & Associates**
 - Executed design build GraviLoft retaining wall approximately 15 m high at Pune
- **Maxion Wheels Aluminum India Pvt. Ltd.**
 - Executed design build GraviLoft retaining wall approximately 30 m high at Chakan, Pune
- **ESR Pune Industrial Park Pvt. Ltd.**
 - Executed design build GraviLoft retaining wall approximately 25 m high at Chakan, Pune

.... And so on (list incomplete)

PROFESSIONAL APPOINTMENTS

2010	- Present	Principle Consultant - Savi Designers & Consultants Managing Director - Savi Infrastructures & Properties Pvt. Ltd.
2003	- 2010	Globe Infrastructure (Proprietor, Civil Consultancy & Construction Firm) & Inventa International (Partnership design firm)
Feb. 1992	- Nov. 2003	Faculty, Department of Civil Engineering, College of Engineering Pune, University of Pune, India

PROFESSIONAL APPOINTMENT IN EDUCATION SECTOR

Recognized as a Post Graduate Lecturer in Civil Engineering by the University of Pune for the period from 2001 to 2006.

ACADEMIC GUIDANCE

- Guided Miss Vinita S. Kolhe for her Master of Engineering in the Department of Civil Engineering, Govt. College of Engineering, Pune, University of Pune, from 2000 to 2002. (M.E. Completed)
- Guided four students for their Master of Engineering in the Department of Civil Engineering, Govt. College of Engineering, Pune, University of Pune, from 2000 to 2002. (Seminar work)

EXTERNAL EXAMINER

- Served as a referee for the M. Tech. (Civil Geotechnical Engineering) dissertation of Gaurav Singh Chauhan at Govt. College of Engineering, Pune.
- Served as a referee for the M. Tech. (Civil Geotechnical Engineering) dissertation of Renuka S. Vaishampayan at Govt. College of Engineering, Pune.

NATIONAL CONFERENCE

- Paper presented in National Conference on Smarter Cities – India 2015: Smarter Solutions For a Better Tomorrow (SCI – 2015) 8-9 June 2015, Organised by Sinhgad College of Engineering, Pune
- *Vikas S. Patil, Malhar V. Patil*, Smart Solutions in Infrastructure Development of Smart Cities: Earth Retaining Structures at Indian Geotechnical Conference Pune, India 2015

PROFESSIONAL SEMINARS/CONFERENCES/SHORT TERM COURSES

- Short term course on “Theoretical and practical aspects of Offshore Structures” at IIT Mumbai
- Short term course on “Modern Surveying Techniques” at Government College of Engineering, Pune
- Short term course on “Materials For The New Millenium” at Government College of Engineering, Pune
- Workshop on “Solar Energy Engineering” at Government College of Engineering, Pune
- National Conference on “Smarter Cities – India 2015: Smarter Solutions for a better tomorrow (SCI – 2015)

RESEARCH & INVENTION

RESEARCH AREA

- Reinforced Unpaved Roads
 - Developed a novel approach for the design of reinforced unpaved roads in developing countries like India.
 - Optimized the initial expenditure on village unpaved roads, resulting in a cost reduction of approximately 38% compared to conventional design methods.
- Earth Retaining Structures
 - Conducted research and extensive market survey in the field of earth retaining structures.
 - Developed Georet & GraviLoft Technology, an innovative discipline for the design and construction of earth retaining structures.
 - Addressed space constraints in infrastructural development and applied the technology in various structures such as roads, canals, culverts, bridges, slope of nallas, river training works, and grade separators.

- Culverts
 - Developed a new technology for the design of culverts in infrastructural development.
 - Optimized the cost of culvert construction by introducing innovative design methods.
 - Focused on structures that do not generate direct revenue for the government but are necessary for the infrastructure.

INVENTIONS

- Georet & GraviLoft Technology:
 - Co-invented, developed, and perfected Georet & GraviLoft Technology for the design and construction of earth retaining structures.
 - Emphasized construction-friendly methodologies, ensuring safety, time-saving, and cost-effective execution while preserving natural resources.
- Evolution of New Technology in the Design of Culverts:
 - Introduced the concept of pressure relief in the design of culvert abutments, reducing 60% overall costs.
 - Invented, developed, and perfected a new technology for culvert design, resulting in approximately 20% cost savings compared to conventional design concepts.

AWARDS AND HONOURS

SCHOLARSHIP HOLDER

Secondary School Scholarship Examination, Government Board of Examination
Maharashtra State, Pune – 411 001

CO-INVENTOR & CO-PATENT HOLDER

Co-Patent holder of the GraviLoft Technology under Intellectual Property Rights (Patent Number 210506) of Government of India. It is an innovative method of designing and constructing a retaining wall.

PROFESSIONAL ACHIEVEMENTS (DETAILS)

GOVERNMENT/SEMI-GOVERNMENT SECTOR CONSULTANCY

National Highway Authority Of India

In the Golden Quadrilateral Project of the Government of India, specifically in the "Four Laning of Satara-Kolhapur up to M. S. Border" section of NH-4, Package-V (Km. 697.000 to Km. 725.000), a significant construction project was undertaken in the Umbraj area. This involved the implementation of GraviLoft retaining walls.

The construction of these retaining walls was necessary due to the elevated nature of the highway in the Umbraj town, where it intersects with National Highway No.4. The purpose of the retaining walls was to provide stability and support to the elevated highway section, ensuring the safe passage of through traffic.

The GraviLoft retaining walls were constructed on both sides of the national highway, covering a distance of approximately 750 meters. The height of these walls varied between 2 meters and 9.5 meters, adapting to the specific requirements of the terrain and ensuring the structural integrity of the elevated highway.

Chhattisgarh PWD (National Highway & Bridge), Raipur

As part of the infrastructure development on the Hawrah-Mumbai rail line at Raigarh in Chhattisgarh, a Road Over Bridge (ROB) was constructed at km 585/8. To support the approaches of the ROB, GraviLoft retaining walls were constructed along both sides.

The approaches to the ROB had a total length of approximately 750 meters, and GraviLoft retaining walls were built consistently along these sections. The heights of these walls varied between 2.6 meters and 8.8 meters, catering to the specific requirements of the terrain and ensuring the stability and safety of the ROB approaches.

In Bhatapara, Chhattisgarh, a construction project was undertaken to build an ROB at km 763/17-19 on the Mumbai-Hawrah rail line, excluding the railway portion. As part of this project, GraviLoft retaining walls were constructed along both sides of the ROB approaches.

The approaches to the ROB had a total length of approximately 580 meters. GraviLoft retaining walls were erected consistently along these sections to provide stability and support to the infrastructure. The height of the retaining walls ranged from 1.6 meters to 8.8 meters, depending on the specific requirements of the terrain and ensuring the structural integrity of the ROB approaches.

Maharashtra Industrial Development Corporation (MIDC)

In the Talegaon Industrial Area, a significant construction project involved the development of an approach road from National Highway No.4 to the industrial area. As part of this project, GraviLoft retaining walls were constructed along both sides of the approach road, encompassing the main roads and service roads.

The GraviLoft retaining walls extended along a length of approximately 12.600 kilometers, providing essential support and stability to the infrastructure. The height of these walls varied between 2 meters and 7.0 meters, adapting to the specific terrain requirements and ensuring the integrity of the approach road.

Maharashtra Public Works Department (PWD)

In the vicinity of Dondaicha, Tal. Shindkheda, Dist. Dhule, a ROB was constructed at Km. 58/900 on the Solapur-Aurangabad-Dhule-Shahada-Dhadgaon Road (M.S.H.-1). As part of this construction project, GraviLoft retaining walls were erected along both sides of the ROB approaches.

The approaches to the ROB had a combined length of approximately 600 meters. GraviLoft retaining walls were built consistently along these sections to provide stability and support to the infrastructure. The height of the retaining walls ranged from 2.0 meters to 9.0 meters, depending on the specific requirements of the terrain and ensuring the structural integrity of the ROB approaches.

Maharashtra State Road Development Corporation (MSRDC)

As part of the widening project of the ROB near Wadia College in Pune, a construction project involved the implementation of GraviLoft retaining walls. These retaining walls were specifically constructed in the middle portion of the widening project and its approaches, where the bearing capacity of the substrata was a critical parameter in the design and economic evaluation.

For a section of approximately 550 meters that required widening, GraviLoft retaining walls were erected. The height of these retaining walls varied between 2 meters and 4 meters, taking into account the specific requirements of the terrain and ensuring the structural stability and integrity of the widened ROB and its approaches.

Maharashtra State Irrigation Department

In the Ratnagiri district, a construction project involved the implementation of GraviLoft retaining walls for the tail and approach channel of the Shil Minor Irrigation Tank. These retaining walls were built to provide stability and support to the channel, ensuring the proper functioning of the irrigation system. The GraviLoft retaining walls along the tail and approach channel of the Shil Minor Irrigation Tank varied in height. The heights of these walls ranged from 4.1 meters to 8.50 meters, accommodating the specific requirements of the terrain and providing the necessary structural integrity to the channel.

Maharashtra Public Works Department (PWD)

At the Maharashtra Judicial Academy and Training Center in Uttan, Dist. Thane, a construction project involved the implementation of a GraviLoft retaining wall. This retaining wall was specifically constructed to protect a bungalow on the premises due to challenging topographical conditions. The GraviLoft retaining wall extends along a length of approximately 120 meters, providing essential support and stability to safeguard the bungalow. The height of the retention wall measures about 12.50 meters, ensuring adequate protection and mitigating the impact of the topographical challenges.

Pune Municipal Corporation (PMC) (Road Department)

As part of the construction project for the approaches to the Kalyaninagar-Koregaon new bridge, GraviLoft retaining walls were built along both sides of the Mula-Mutha River Bridge. These retaining walls were designed to provide stability and support to the bridge approaches. The GraviLoft retaining walls extend along a length of approximately 210 meters on either side of the bridge approaches. The height of these retaining walls varies between 4.0 meters and 6.0 meters, taking into consideration the specific terrain conditions and ensuring the structural integrity of the approaches.

Pune Municipal Corporation (PMC) (Drainage Department)

Near Raosaheb Patwardhan Vidyalaya, Dandekar Pool in Pune, a construction project involved the construction of a GraviLoft retaining wall. This retaining wall was specifically built to protect the Aambil Odha, which is located adjacent to a slum area. The GraviLoft retaining wall extends along a length of approximately 450 meters, providing essential protection and stability to the Aambil Odha. The height of the retaining wall varies between 5.0 meters and 6.0 meters, addressing the specific requirements of the terrain and ensuring the necessary structural integrity for protection.

Pimpri Chinchwad New Township Development Authority (PCNTDA)

As part of the nalla training work at Chinchwad Polytechnic in Sector No. - 26, a construction project involved the implementation of GraviLoft retaining walls. These retaining walls were constructed along both sides of the nalla to facilitate effective nalla training. The GraviLoft retaining walls extend along a length of approximately 450 meters on either side of the nalla. The height of these retaining walls varies between 2.0 meters and 4.0 meters, accommodating the specific requirements of the terrain and ensuring the proper channeling and management of the water flow.

.... And so on (list incomplete)

CORPORATE SECTOR CONSULTANCY

Tata Housing Development Company Ltd.

For the Villa Project at Prive, Lonawala, Pune, the design and construction of a GraviLoft retaining wall were undertaken. This retaining wall serves the purpose of providing structural support and stability to the project. The GraviLoft retaining wall stretches approximately 2.5 kilometers in length, catering to the specific requirements of the project site. The height of the retaining wall varies from 2 meters to 10 meters, ensuring the necessary stability and functionality.

Lodha Group

For the PALAVA City, Casa Rio Dombivali, and Dahisar Projects in Mumbai, the design and construction of GraviLoft retaining walls were carried out. These retaining walls were implemented to provide stability and support to the projects.

The GraviLoft retaining walls extend approximately 8.5 kilometers in total length, catering to the specific requirements of each project. The height of the retaining walls varies from 2 meters to 8 meters, ensuring the necessary structural integrity and functionality.

Peninsula Land Ltd.

For their projects in Nashik, Mumbai, Lonawala, and Pune, the design and construction of GraviLoft retaining walls were undertaken. These retaining walls were implemented to provide structural support and stability to the respective project sites.

The GraviLoft retaining walls extend approximately 4.5 kilometers in total length, catering to the specific requirements of each location. The height of the retaining walls varies from 2 meters to 10 meters, ensuring the necessary stability and functionality.

Kalpataru Group

For their Lonawala Project, the design and construction of a GraviLoft retaining wall were undertaken. This retaining wall serves the purpose of providing structural support and stability to the project site in Lonawala.

The GraviLoft retaining wall is approximately 150 meters in length, catering specifically to the requirements of the project. The height of the retaining wall varies from 4 meters to 6 meters, ensuring the necessary stability and functionality for the area.

Smart Value Homes Ltd.

For the Shubh Griha, Vasind Project in Thane, the design and construction of a GraviLoft retaining wall were carried out. This retaining wall serves the purpose of providing structural support and stability to the project site.

The GraviLoft retaining wall is approximately 450 meters in length, catering specifically to the requirements of the project. The height of the retaining wall varies from 4 meters to 10 meters, ensuring the necessary stability and functionality for the area.

DLF – Akruiti Info Tech Park, Hinjewadi - Pune.

For their Hinjewadi Project in Pune, the design and construction of a GraviLoft retaining wall were undertaken. This retaining wall serves the purpose of providing structural support and stability to the project site.

The GraviLoft retaining wall is approximately 500 meters in length, catering specifically to the requirements of the project. The height of the retaining wall varies from 3 meters to 7 meters, ensuring the necessary stability and functionality for the area.

Mahindra Vehicle Manufacturers Ltd., Pune

For their Chakan Project in Pune, the design and construction of a GraviLoft retaining wall were undertaken. This retaining wall serves the purpose of providing structural support and stability to the project site.

The GraviLoft retaining wall is approximately 250 meters in length, specifically designed to meet the requirements of the project. The height of the retaining wall varies from 3 meters to 7 meters, ensuring the necessary stability and functionality for the area.

.... And so on (list incomplete)