# Patent Licensing Proposal

Inventor: Mr. Sandeep Gujjar

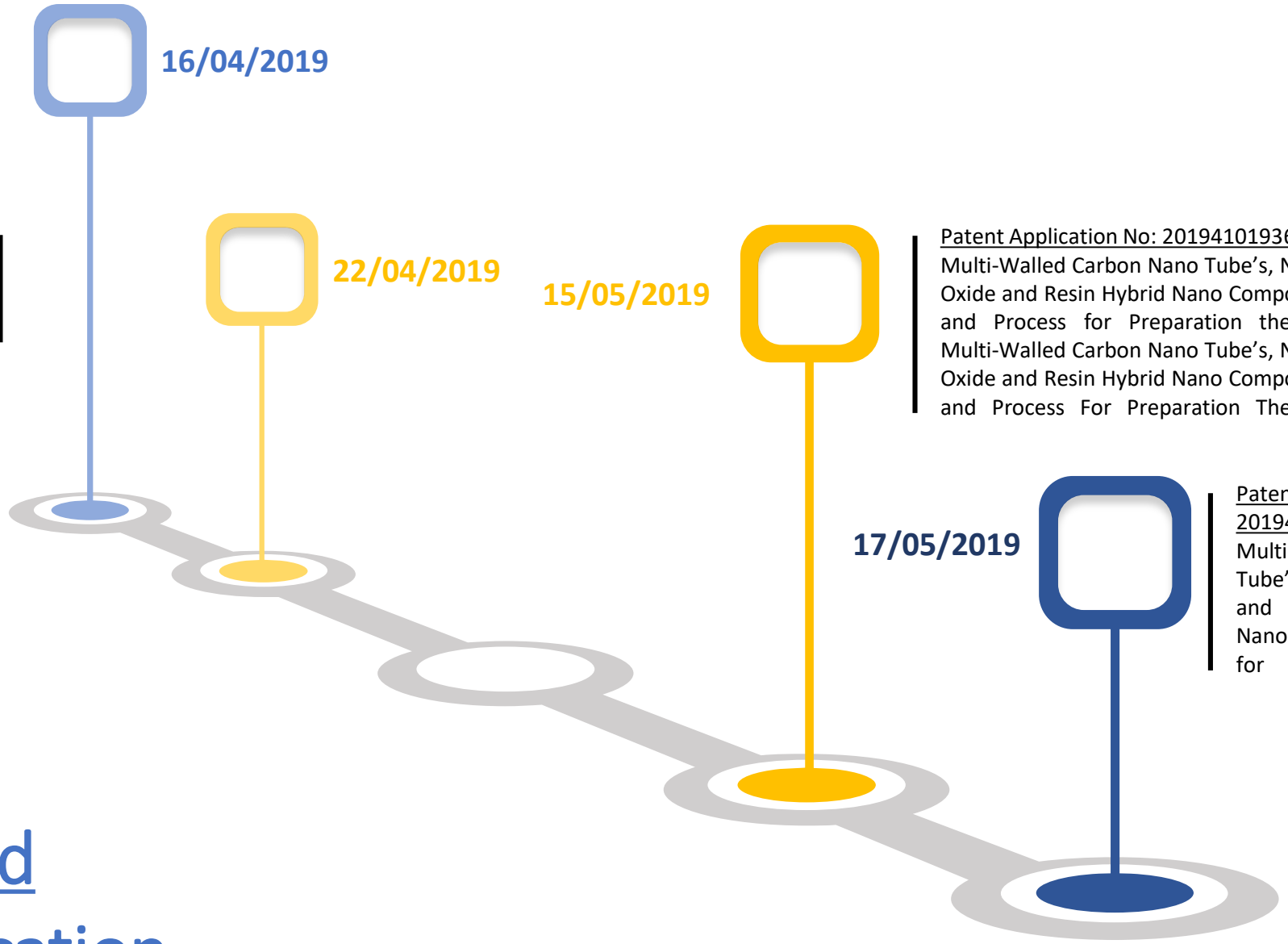
## Technical Field of Invention:

Technical Field of the current inventions pertain to Metallurgy, wherein the processes for which Patent Applications are filed tend to improve the Chemical and Mechanical Properties of Mild Steel.

## Introduction To The Field Of Invention:

The present invention relates to a Nano hybrid composite comprising, Multi-Walled Carbon Nano Tube's (MWCNT's), Nano Oxide and Resin which is used to prevent the corrosion on surface of mild steel and to enhance the mechanical properties of mild steel used in Reinforce cement concrete. The present invention further relates to a process for the preparation of the said Nano hybrid composite.

# Series of Filed Patent Application



**16/04/2019**

Patent Application No: 201941015346
Multi-Walled Carbon Nano Tube's, Nano Zinc Oxide and Polyurethane Resin Hybrid Nano Composite and Process for Preparation Thereof

**22/04/2019**

Patent Application No: 201941015870
Multi-Walled Carbon Nano Tube's, Nano Cerium Oxide and Epoxy Resin Hybrid Nano Composite and Process for Preparation Thereof

**15/05/2019**

Patent Application No: 201941019361
Multi-Walled Carbon Nano Tube's, Nano Oxide and Resin Hybrid Nano Composite and Process for Preparation thereof Multi-Walled Carbon Nano Tube's, Nano Oxide and Resin Hybrid Nano Composite and Process For Preparation Thereof

**17/05/2019**

Patent Application No: 201941019644
Multi-Walled Carbon Nano Tube's, Nano Graphene Oxide and Polyester Resin Hybrid Nano Composite and Process for Preparation Thereof

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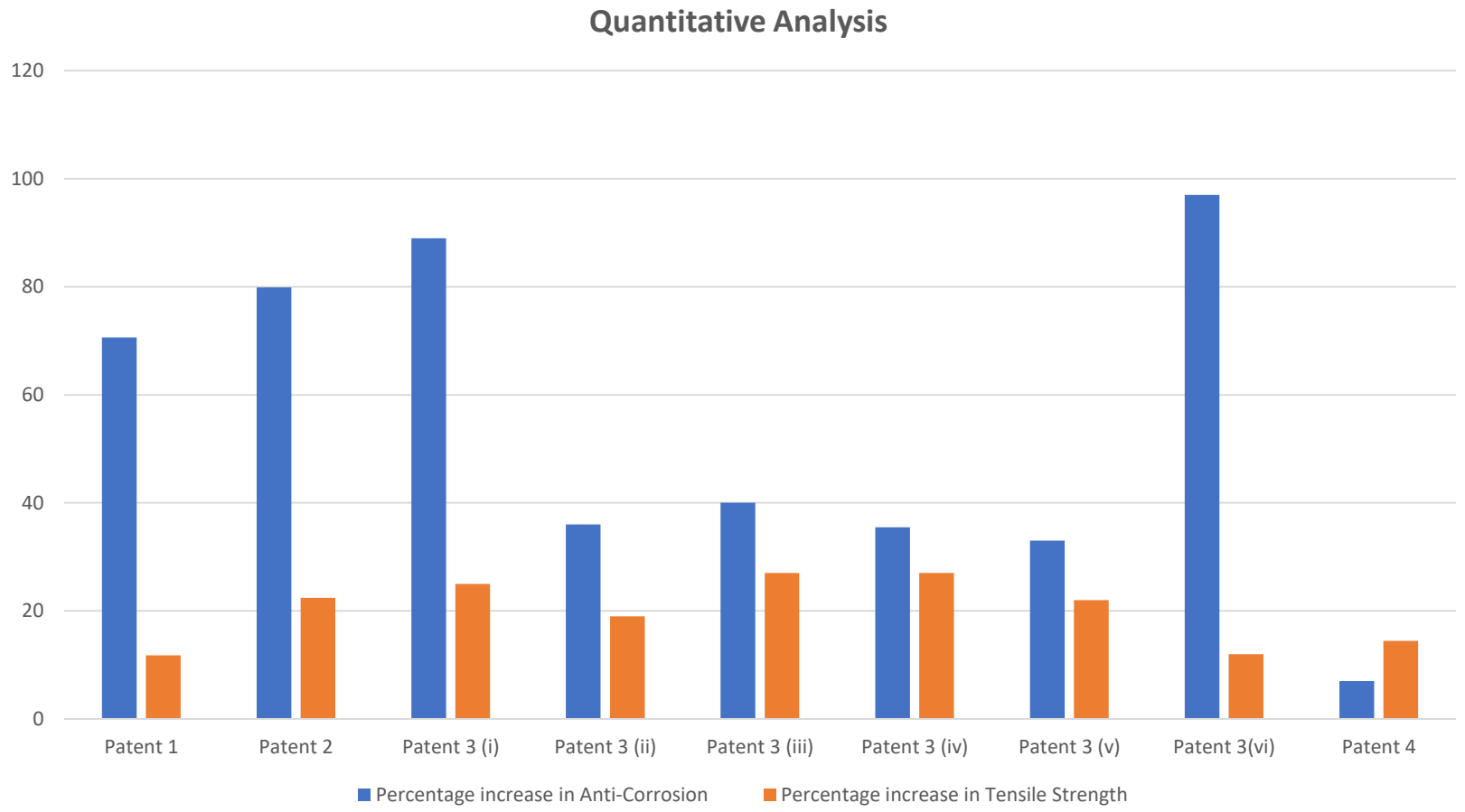
# Exemplary Advantages of Invention

1. Resins have been proven to be better anticorrosive agent for mild steel but nano materials further enhances the anticorrosive property along with the mechanical properties.
2. Multi walled carbon nano tubes which have a very good mechanical properties helps the resin and anticorrosive coating to last longer and increases mechanical properties.
3. Nano oxide further contributes to increase in anticorrosive property with Resin.

# Enhancement Study:

| Patent Application Number | Abbreviation |
|---|---|
| 201941015870 | Patent No 1 |
| 201941015346 | Patent No 2 |
| 201941019361 | Patent No 3 |
| (i) MULTI-WALLED CARBON NANO TUBE'S, NANO SILICON OXIDE AND POLYESTER RESIN | Patent No 3 (i) |
| (ii) MULTI-WALLED CARBON NANO TUBE'S, NANO SILICON OXIDE AND EPOXY RESIN | Patent No 3 (ii) |
| (iii) MULTI-WALLED CARBON NANO TUBE'S, NANO GRAPHENE OXIDE AND PHENOLIC RESIN | Patent No 3 (iii) |
| (iv) MULTI-WALLED CARBON NANO TUBE'S, NANO SILICON OXIDE AND POLYURETHANE RESIN | Patent No 3 (iv) |
| (v) MULTI-WALLED CARBON NANO TUBE'S, NANO ZINC OXIDE AND EPOXY RESIN | Patent No 3 (v) |
| (vi) MULTI-WALLED CARBON NANO TUBE'S, NANO ZINC OXIDE AND POLYESTER RESIN | Patent No 3 (vi) |
| 201941019644 | Patent No 4 |




Note:

- The corrosion test was carried out for 360 hours by immersion test and salt spray test. The results of various composites have been mentioned in the above table. The actual results of already existing Nano composite coating results are not revealed in any of the research journals.
- In the existing research journals have different types of tests and duration of study, which may lead to difference in result percentage with the existing Nano Composite.

## Expectations:

- Inventor seeks alliance with Potential Licensees to assign Licensing Rights.
- Inventor is also interested in Sale of the Patents.

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