# Portfolio

Shubham Verma

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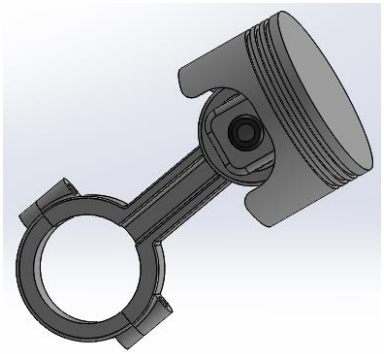
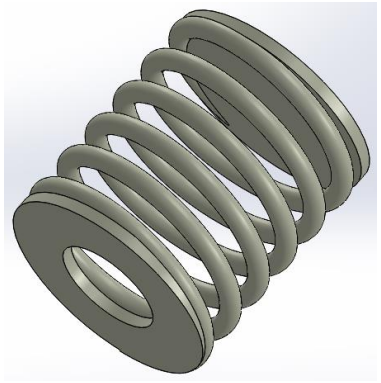
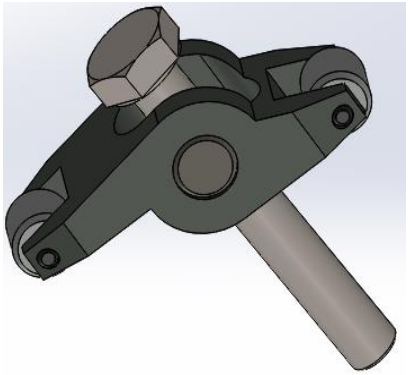
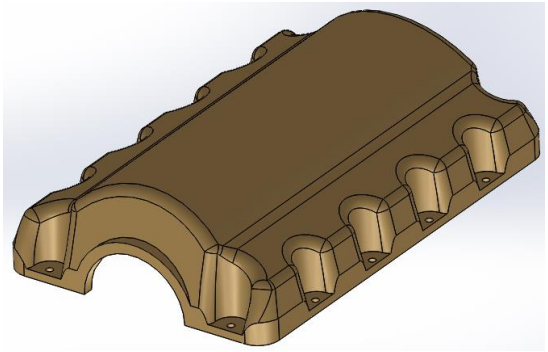
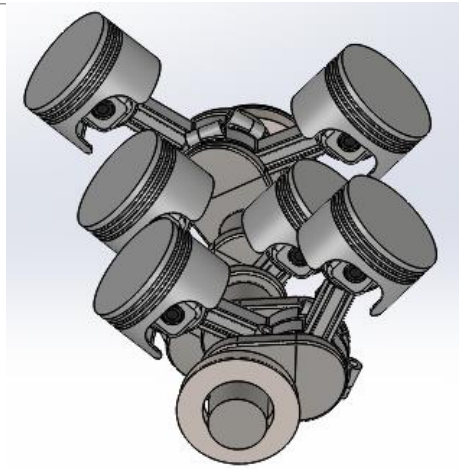
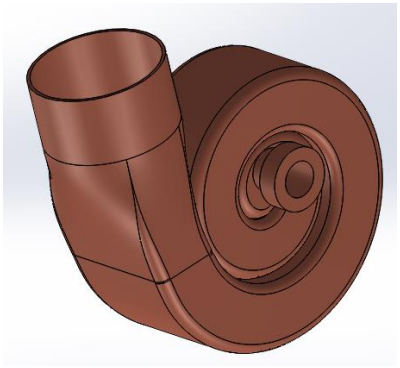
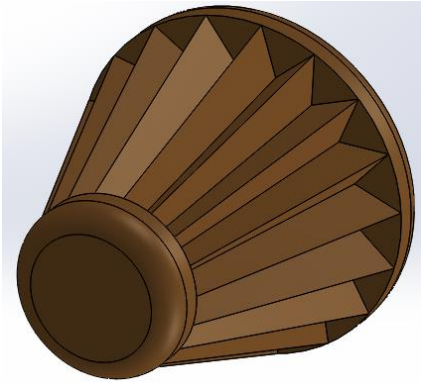
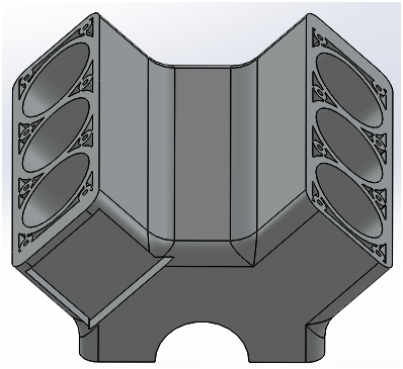
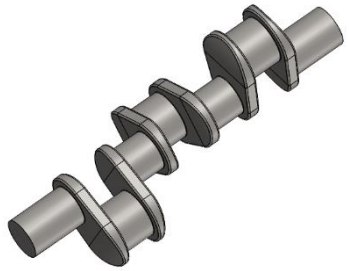
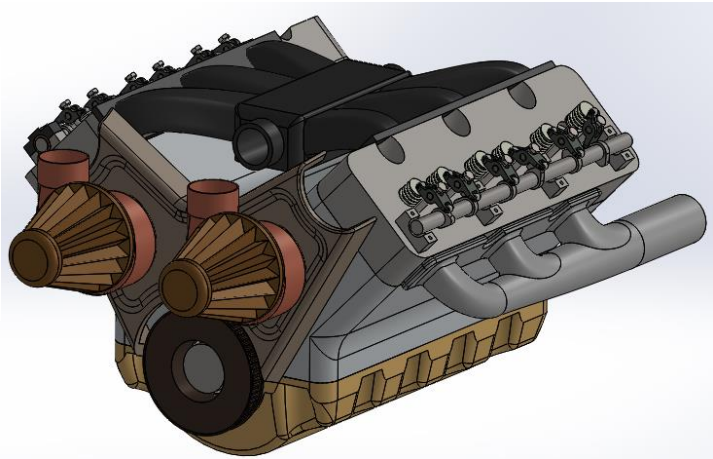
**Objective :**

Passionate mechanical engineer worked in field of designing and had proven work in national level competition and won two awards. Delivered each job with enthusiasm and before deadline. Proficient in software like AutoCAD, Solidworks, Catia, ProE and Ansys.

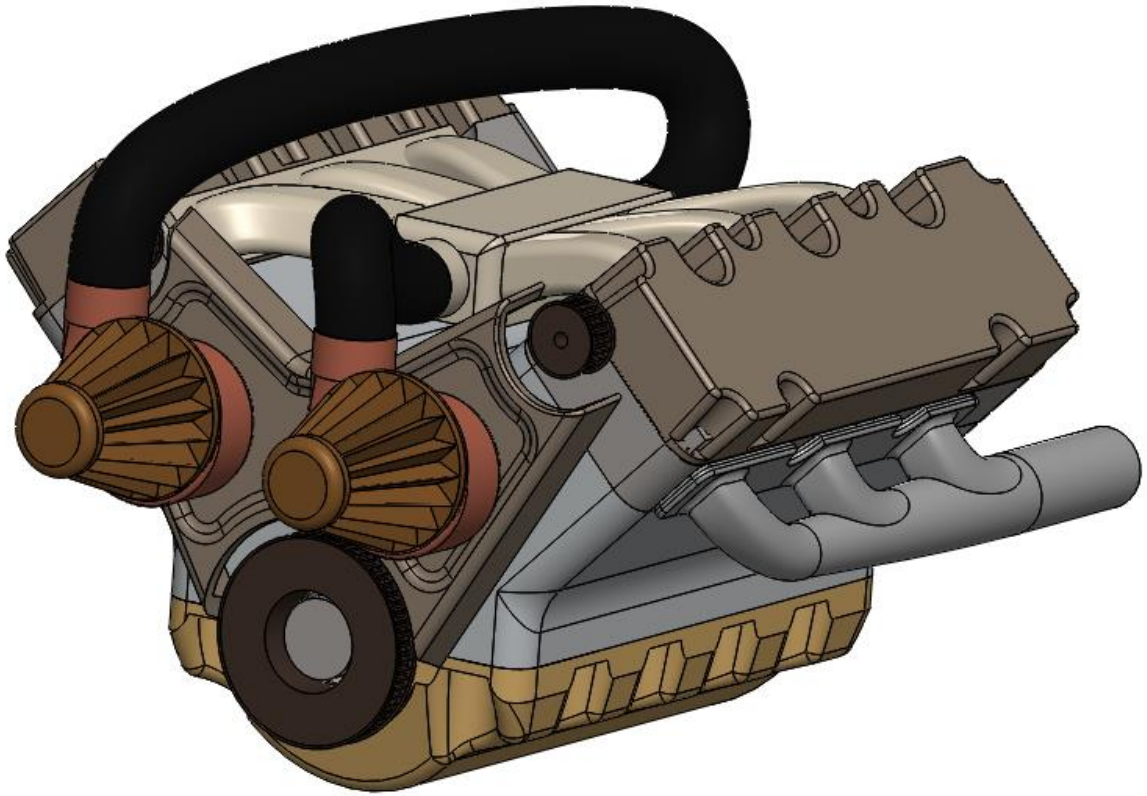
# Design of V6 Engine

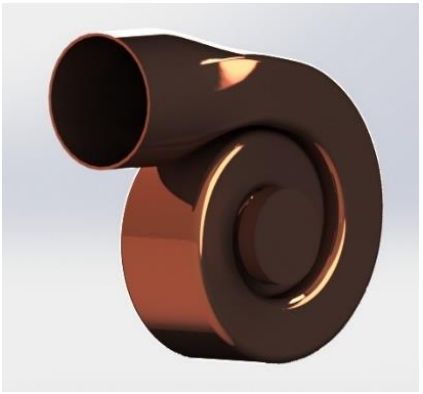
**Feature Used – 2D/3D Modeling and Surfacing.**

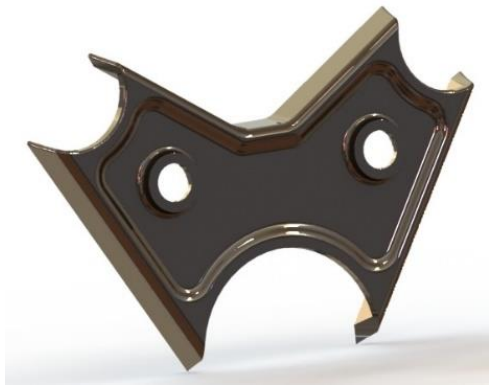
Some of the Engine Parts and sub-assembly.

## Final V6 Engine Assembly



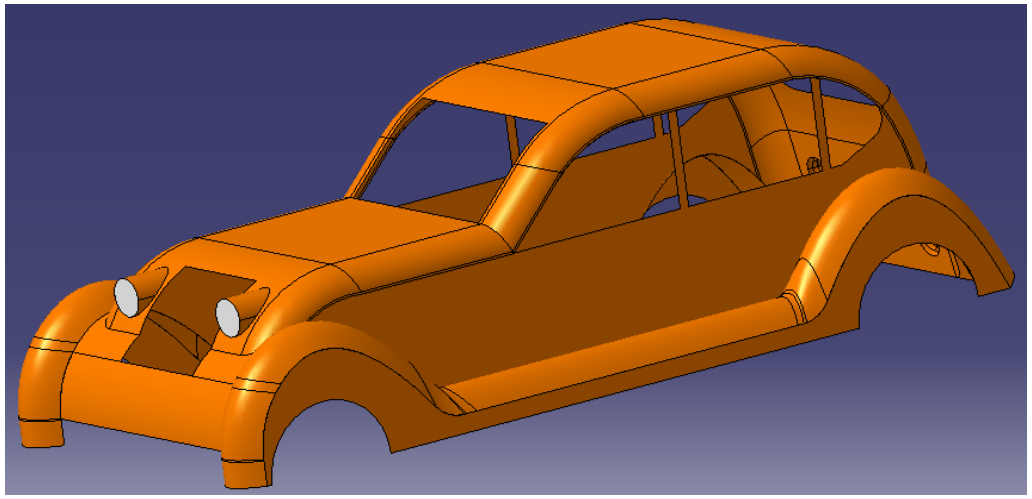


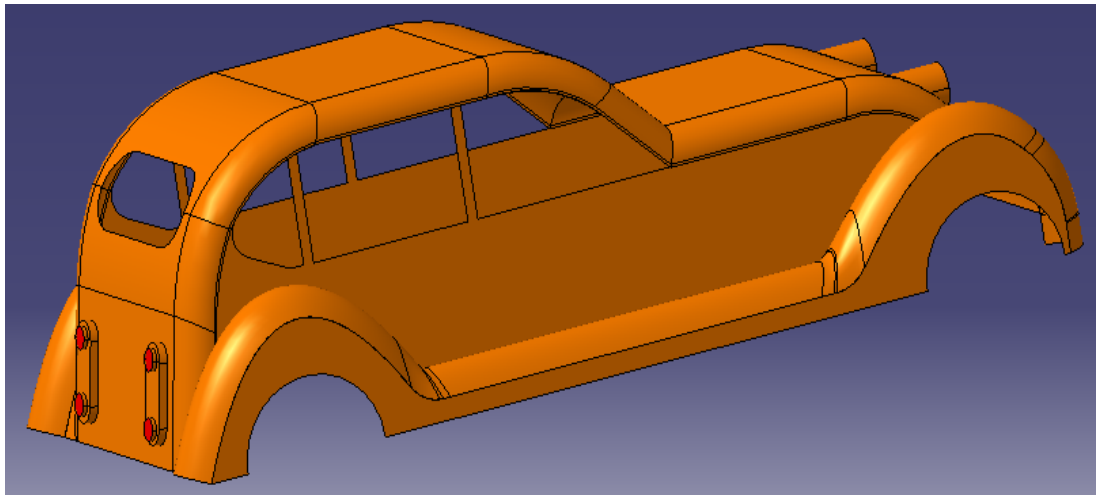


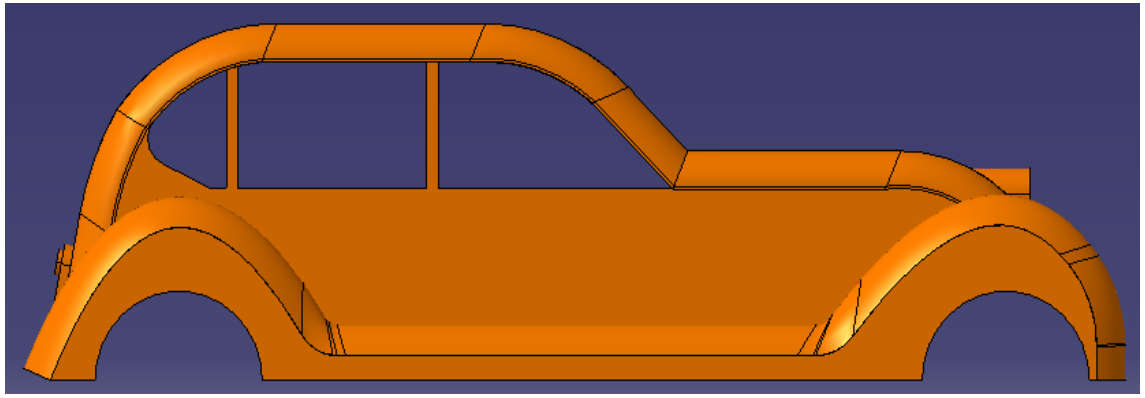
## Rendered Image

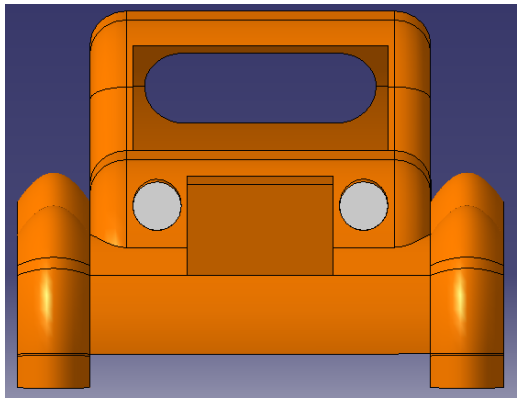
# Design of Vintage Car

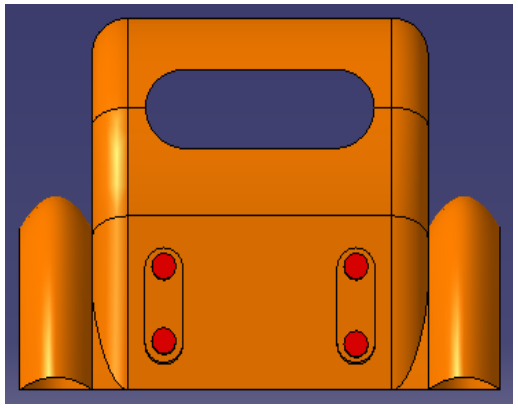
**Feature Used – Wireframe and Surfacing.**

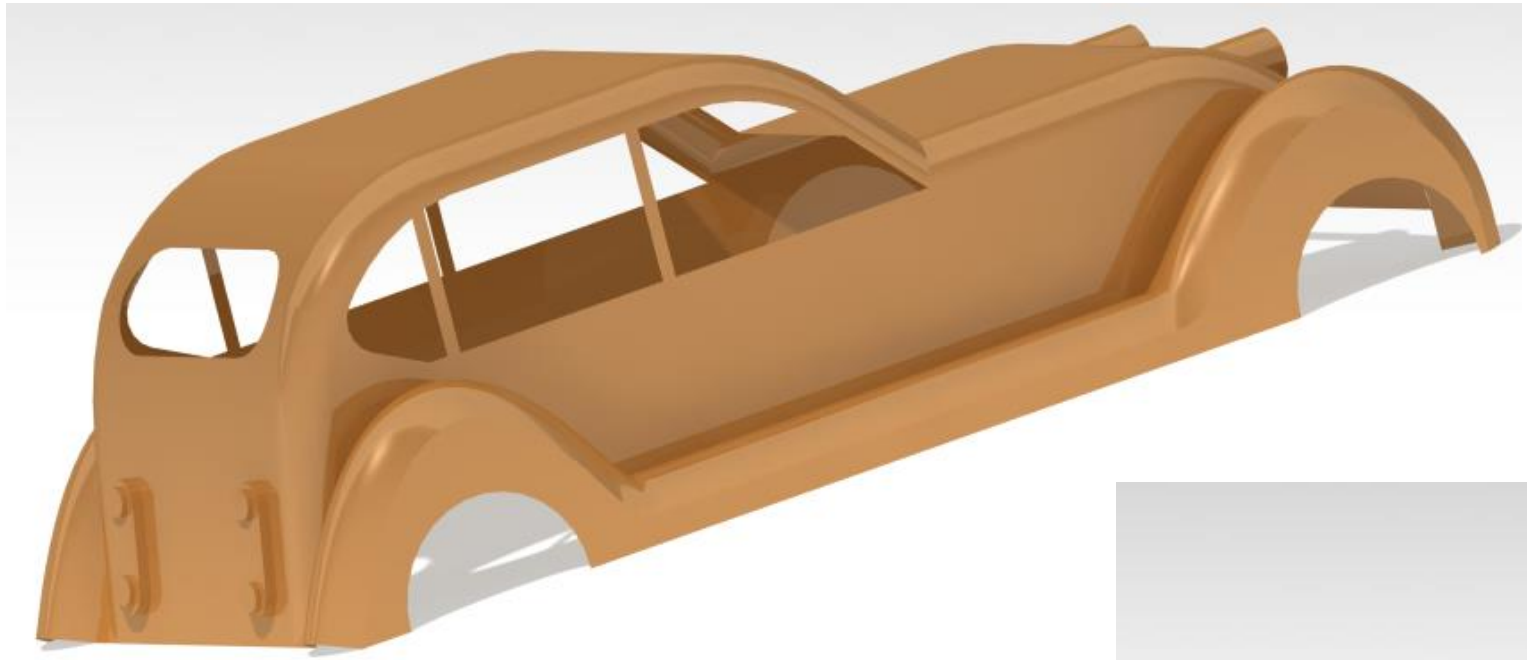








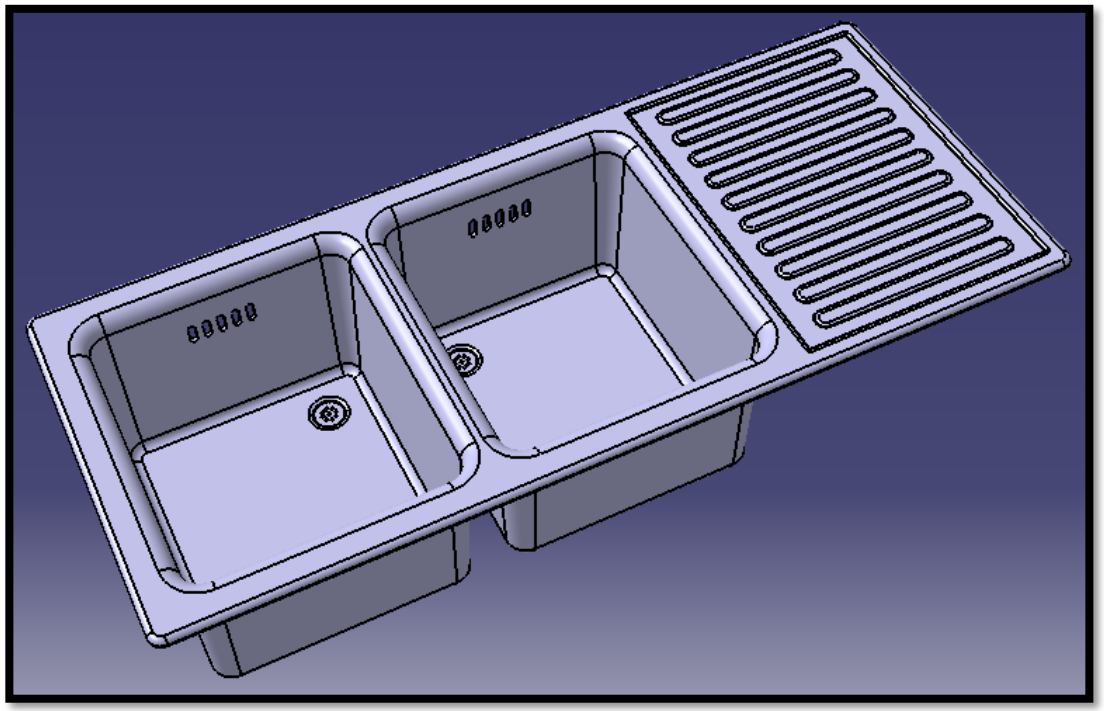


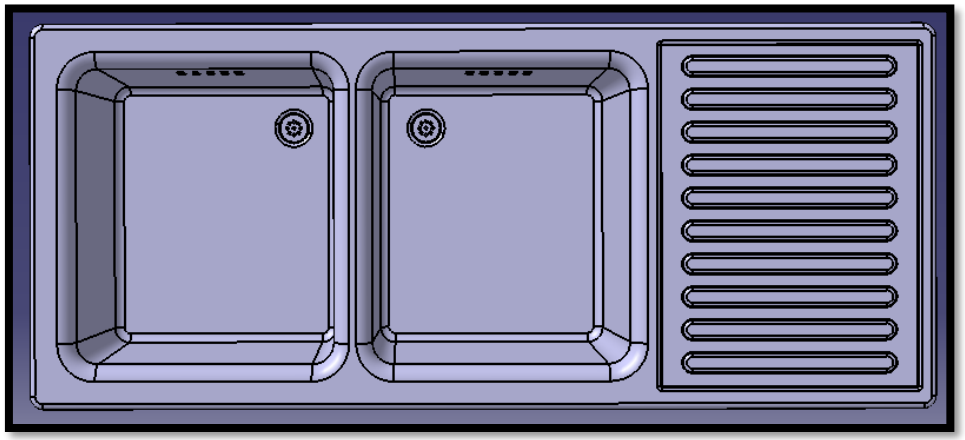


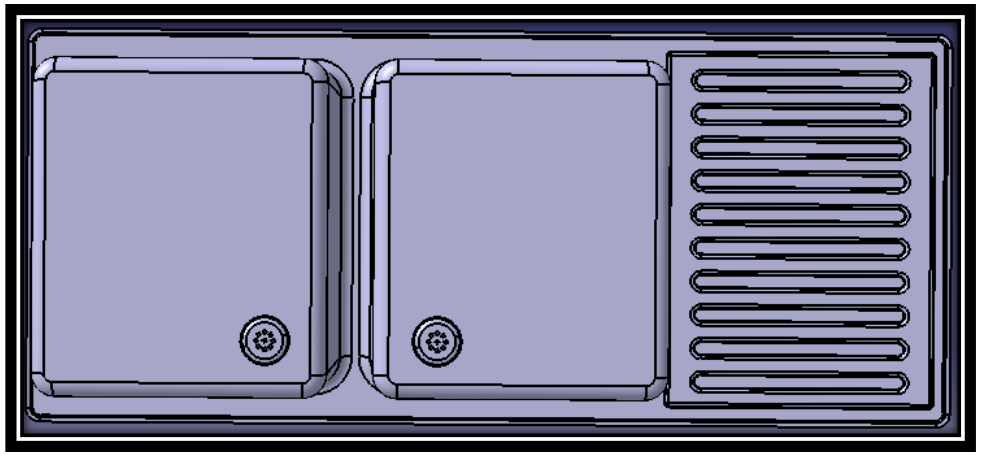
## Rendered Images

# Design of Kitchen Sink

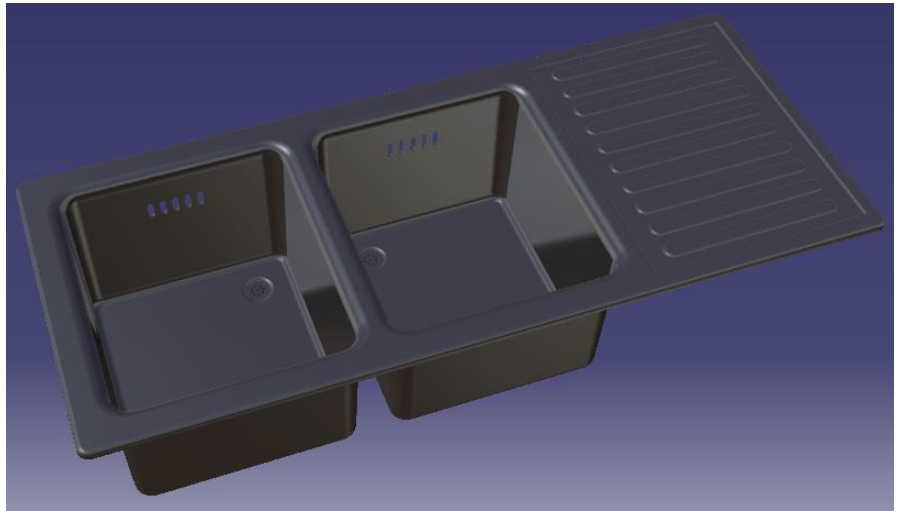
**Feature Used – Sheet metal designing.**







# Metal design with steel metal finish



# Designed and simulated **Chassis** for **SAE Efficycle 2017**

**Feature Used – 2D/3D Modeling, Weldment and Simulation.**

In this project my role was of Team captain and design head. In this project we design, simulate and fabricate a hybrid vehicle. Simulated for test like front, side, rear impact, toppling, etc.

**We won two awards in this national level competition organized by SAE (Society of Automotive Engineers), one for Best build quality and second for Gradient race.**

Hindustan (Hindi), New Delhi
18.01.2018, Thrusday : P-22 (GZB)

## इंजीनियरिंग के छात्रों ने हाईब्रिड कार बनाई

गाजियाबाद | कार्यालय संवाददाता

एनएच-24 स्थित एबीईएस इंजीनियरिंग कॉलेज के छात्रों ने मिलकर एक हाईब्रिड कार बनाई है जो कि गैस्चर कंट्रोल की सहायता से इंडीकेटर को कंट्रोल करेगी। यही नहीं इस वाहन में स्वचालित हेड लाइट भी लगाई गई है, जो प्रकाश के प्रभाव के अनुसार जलती व बुझती है। इसके अलावा यह प्रदूषण रहित है। इससे पर्यावरण को भी इससे किसी भी तरह का कोई नुकसान नहीं होगा। इसे कॉलेज फैकल्टी के सदस्य राहुल खन्ना और शुभ्रांषु बंसल के नेतृत्व में तैयार किया गया है।

छात्रों ने करीब आठ माह में इस वाहन को तैयार किया है। इस वाहन को हाईब्रिड वाहन कहते हैं। इसमें दो लोग बैठ सकते हैं। खास बात यह है कि यह पैडल से चलेगी। इसे बैट्री कार भी कह सकते हैं। हालांकि इस कार के जरिए कितने किलोमीटर की दूरी तय की जा सकेगी, यह अभी तय नहीं हुआ है।

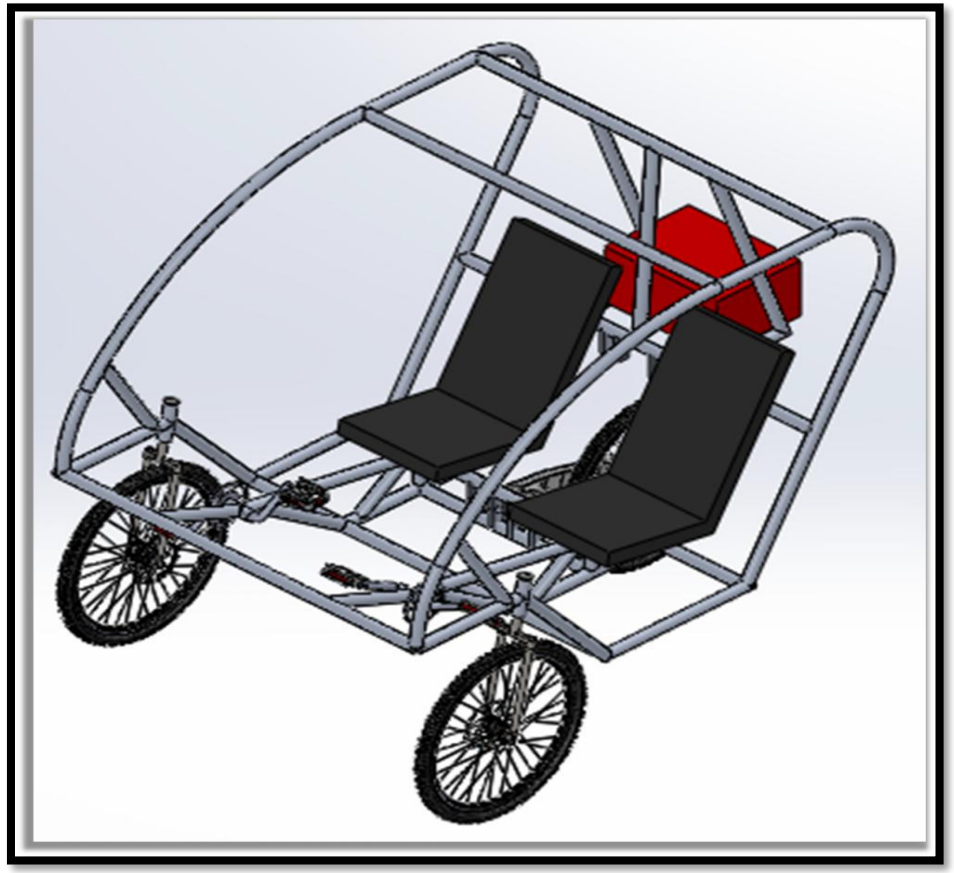
वर्ष 2017 नंबर में सोसाइटी ऑफ ऑटोमोटिव इंजीनियर्स ने हाईब्रिड व्हीकल चैलेंज का आयोजन पंजाब स्थित लवली प्रोफेशनल यूनिवर्सिटी में किया था। इसमें देश के कोने-कोने से करीब 50 से अधिक इंजीनियरिंग कॉलेज के छात्र-छात्राओं ने प्रतिभाग किया था।

इसमें अच्छे प्रदर्शन के लिए एबीईएस इंजीनियरिंग कॉलेज के 19 छात्रों ने मिलकर एक टीम बनाई थी, जिसे प्रोटोगोनिस्ट नाम दिया गया था। इस प्रतियोगिता की छह कैटेगिरी में से बेस्ट क्वालिटी और बेस्ट ग्रेडिएंट का अवॉर्ड एबीईएस इंजीनियरिंग कॉलेज की टीम ने अपने नाम दर्ज करा लिया है। इसमें जीतने वाले विजेताओं को 45 हजार का नकद पुरस्कार देकर उन्हें सम्मानित किया गया। कॉलेज के सदस्य अजीत शुक्ला ने बताया कि ऐसे कार्यक्रमों में अक्सर छात्र अपने आविष्कारों को प्रदर्शित करते रहते हैं। इस बार यहां के छात्रों की मेहनत रंग लाई और उन्हें इसके लिए सम्मानित किया गया। यह बेहद गर्व का विषय है।



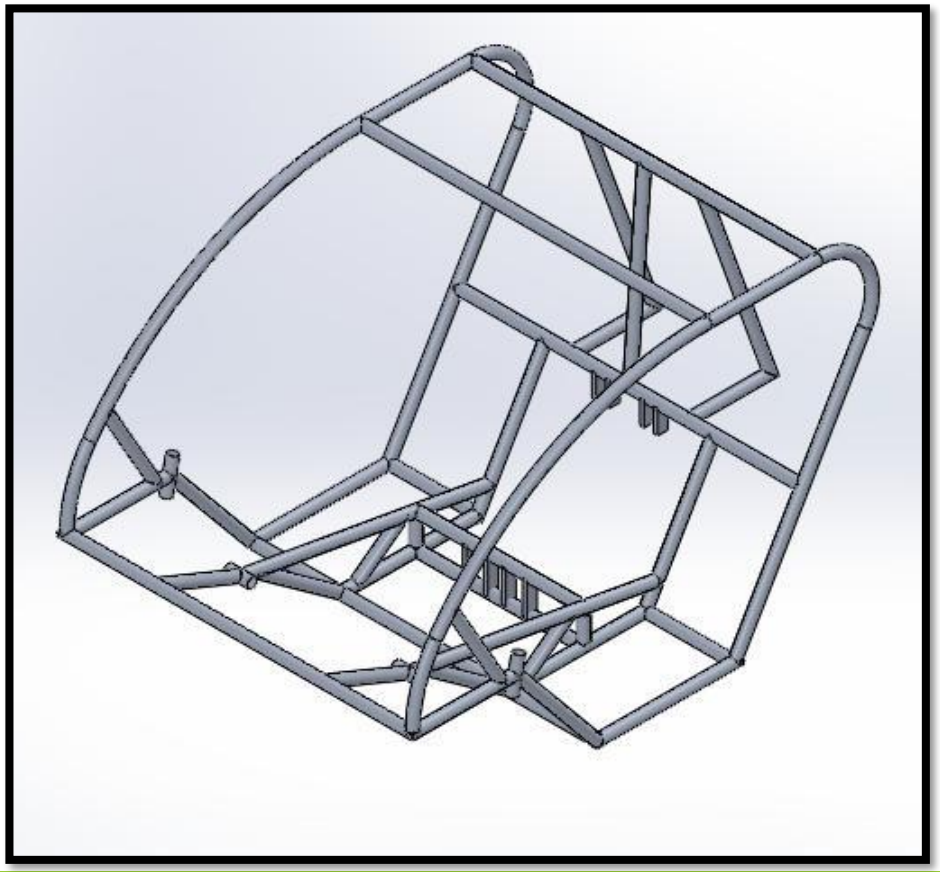
एबीईएस कॉलेज के छात्र अपने बनाए वाहन को दिखाते हुए। • हिन्दुस्तान



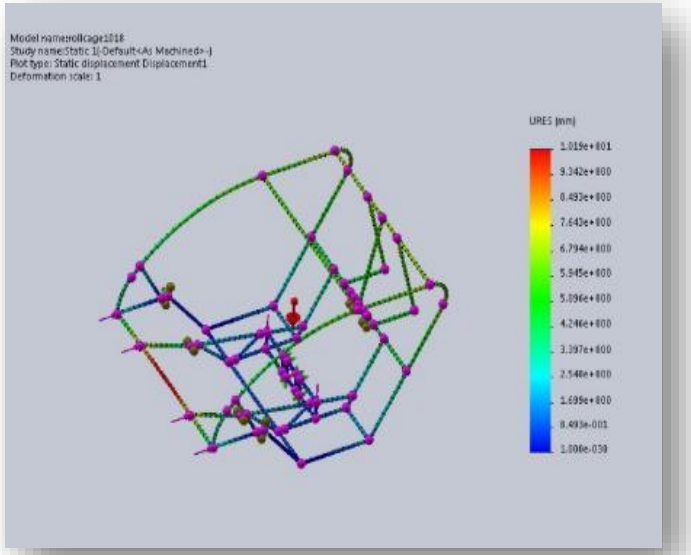



All the designing and simulation work was done on SOLIDWORKS 2016.

**There were many small parts which were designed and fabricated in the vehicle. Some of them were paddle hub, suspension hub, transmission shaft, steering mechanism, etc.**



**Steering Mechanism**

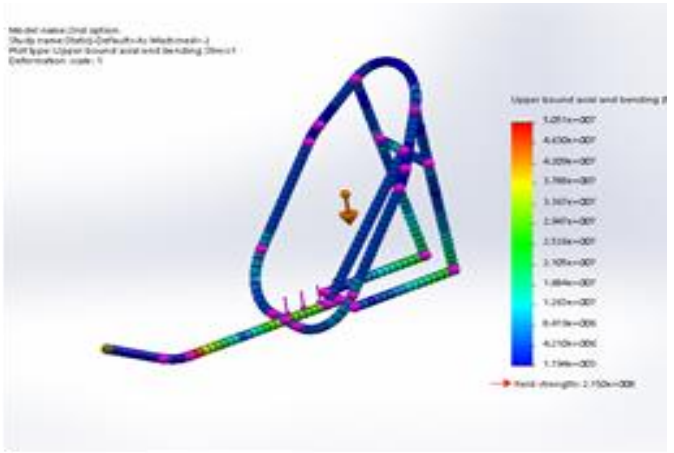


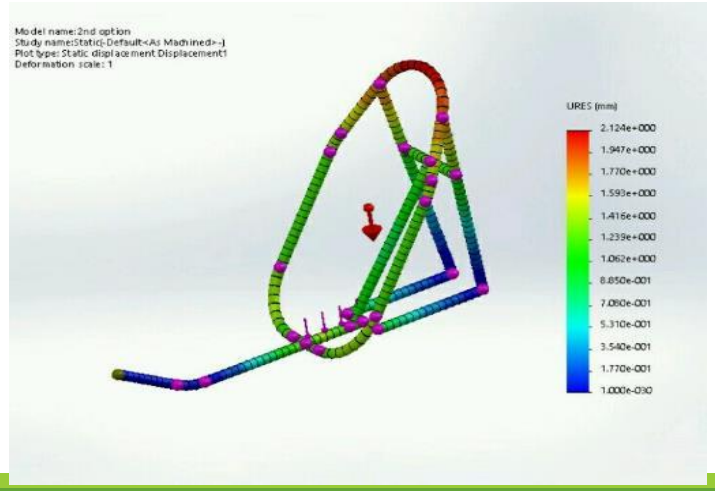
# Designed and simulated **Chassis** for **HPVC**

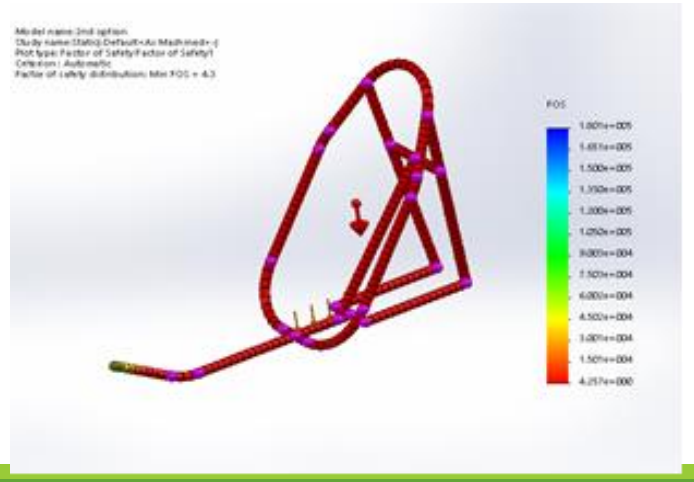
**Feature Used – 2D/3D Modeling, Weldment and Simulation.**

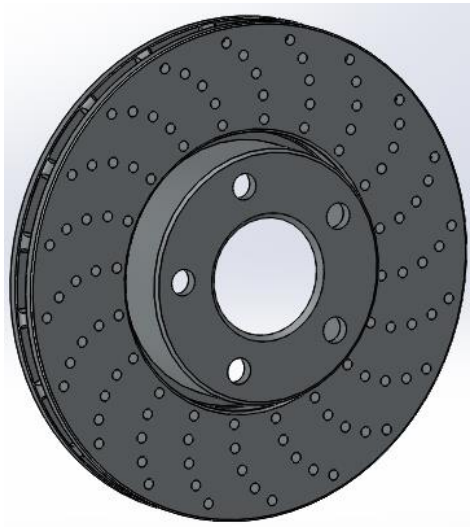
Human Powered Vehicle Challenge is organized by ASME (American Society of Mechanical Engineer).

HPVC aim to design and fabricate a vehicle with enhanced performance and efficiently work on only human power.

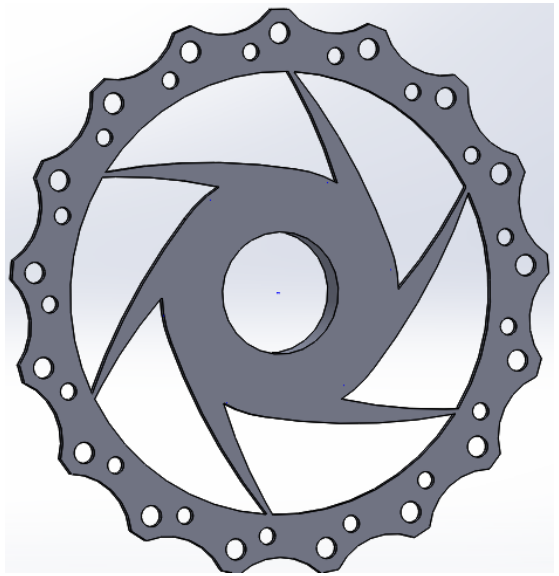
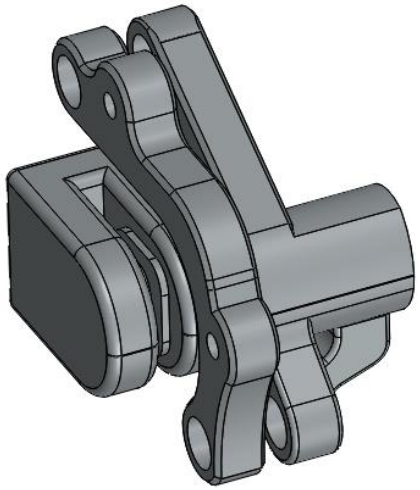
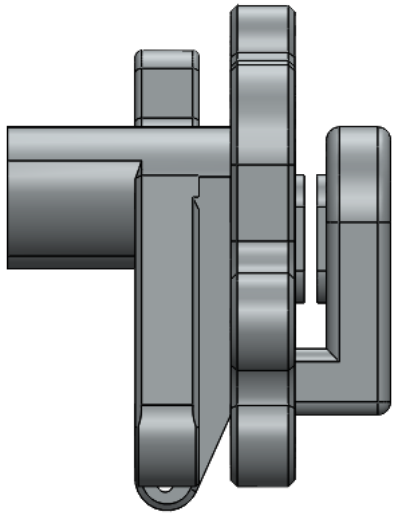
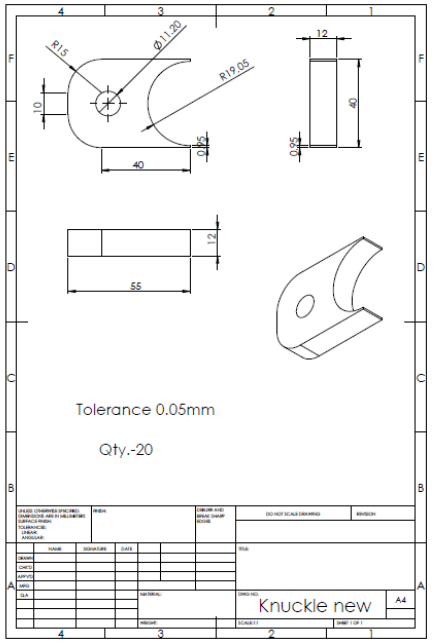
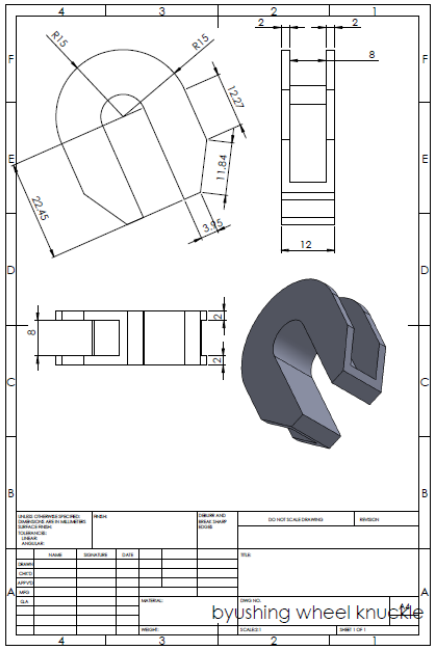
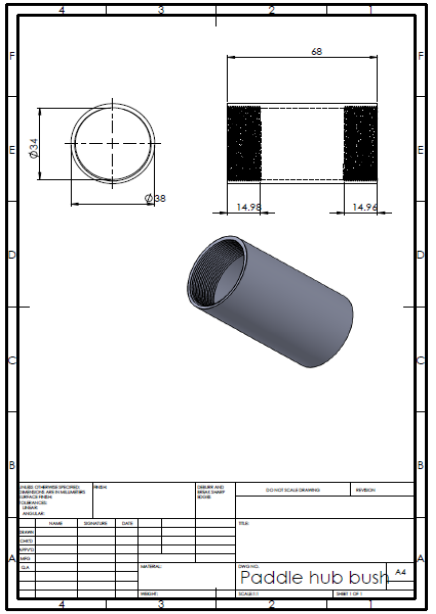
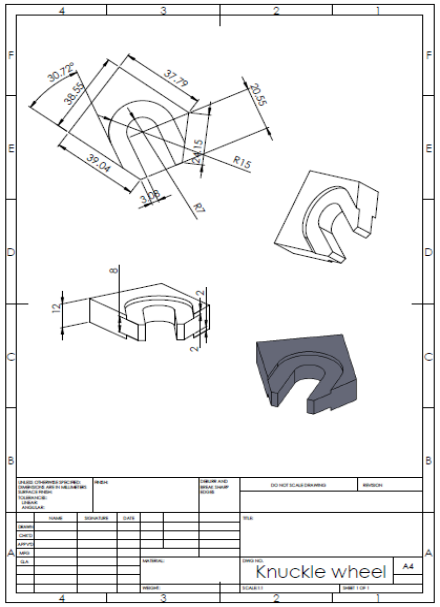






Disk brake caliper and disk.

In simulation there were three main factors that were considered i.e. Maximum stress, maximum deformation and factor of safety.

All the safety factor were considered and all simulation was done for all type of impact. Factor of safety was kept above 1.5 to avoid any break down of vehicle and for safety of driver