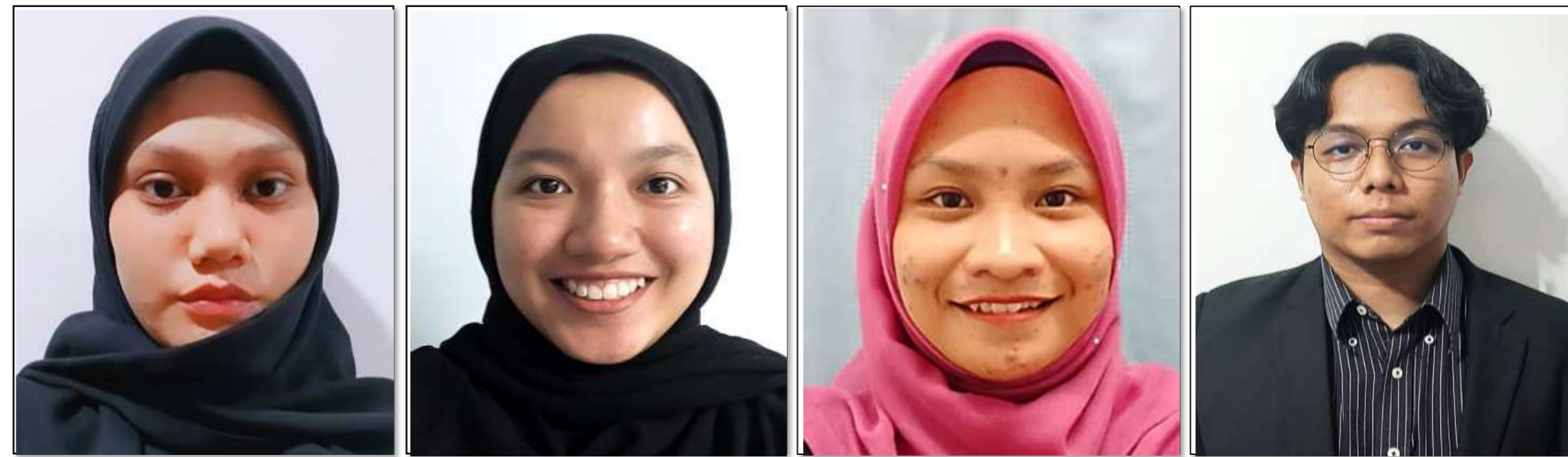




USING RECYCLE CERAMIC TILES AS REPLACEMENT COARSE AGGREGATE IN CONCRETE

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INNOVATION DESCRIPTION

By taking and using natural aggregate, the natural resources will depleting and causing harm to environment.

The demand of construction materials for project is increasing.

Need to explore alternative building materials from industrial waste materials that can be recycled.

Ceramic tiles are often discarded as waste. Ceramic wastes can be used safely with no need for extreme change in production.

The results from the Slump test shows that it is a true slump for all percentages for replacement of recycle ceramic tiles in concrete.

The result for 5% replacement of ceramic tiles in concrete show that the compressive strength is better than conventional concrete.

The result for 15% replacement of ceramic tiles in concrete has the highest strength for 14 days, which has reached conventional concrete compressive strength value.

The result for 35% replacement of ceramic tiles is not necessary because the result of compressive strength of conventional concrete is higher than ceramic tiles concrete.

THE IMPACT OF INNOVATION

CONSTRUCTION INDUSTRY

- The party in the construction industry will found out about the effectiveness of recycled ceramic tiles as replacement of coarse aggregate in building construction.

SOCIETY

- The results of this research will make the community feel safer as the construction industry begins to recycle the construction waste. This will make the environmental secured.

ACADEMICS

- Academics can make the results of this study as a reference to a relevant study nor as a reference to a lesson.

OBJECTIVE

1. To produce **recycled ceramic tiles** as **replacement of coarse aggregate** in concrete.

2. To determine the **strength of concrete**.

3. To determine the **water absorption** in concrete.

FLOW DIAGRAM



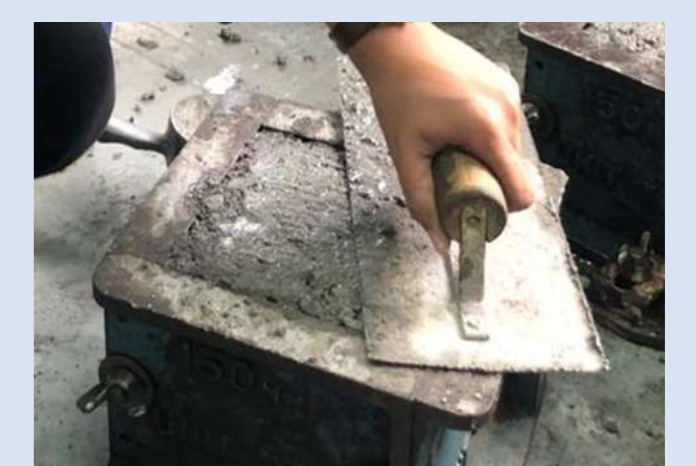
1. Prepare all the materials.



2. Put all materials in concrete mixer.



3. Oil the mould before put concrete into it.



4. Level the surface of the concrete.



5. After 24 hours, open the mould.



6. Curing the concrete sample in tank.



7. Test the compressive strength of the concrete sample.