CHAPTER VI
CONCLUSIONS

The numerical model was appreciated to investigate the incident of liquid in the vicinity of annular outline. The meniscus formed at the junction between a liquid surface and the wall of annular tube were described by the theory of static pressure and the principle of surface tension, meanwhile the height of rising water is measurable through a study of these shapes.

Capillary rise in annular tube results from differences of hydrostatic pressure within a liquid, created by local differences of curvature of the liquid surface. The Young-Laplace equation with the numerical model were equally well employed to solve the geometrical bodies whose radii of curvature are constant over the entire surface or to more intricate shapes for the radii of curvature are changed from place to place on the surface.

Not only does the numerical solution allows the determination of the meniscus surface, it also gives acceptable height of rising water from flat water surface to the bottom of the meniscus for vertical annular tube alignment.

Therefore, using the numerical method to understand the behaviour of liquid retained in the crevice location, causing corrosion problems, is applicable. The amount of water drawn in an annular shape is simply found by applying the outcome from this investigation, while the surface modification would be applied in the minimization of the liquid retained to prevent the serious corrosion afterwards.