References

1. Reeves. W.T. (1983), A Technique for modeling a Class of Fuzzy Objects, ACM Transactions on Graphics, Vol.2, No.2.

This paper introduces particle systems. The reason for reading this paper was to get the knowledge about particles and how they were implemented to create fire, explosion etc.

2. Green.S (2008), nvidia, Particle-based Fluid Simulation.

This presentation presented in GDC gives an idea about simulating particle based fluids using Grid system. It also contains the advantages and disadvantages about using particle based system.

3. Muller.M, et al. (2005), Particle-based Fluid-Fluid Interaction, Eurographics/ ACM SIGGRAPH Symposium on Computer Animation.

This paper talks about how fluids interact with each other and how they can be implemented so that it gives a realistic output. The interaction between fluids is an extension to what I learnt about fluid dynamics.

4. Clavet.S, et al. (2005), Particle-based Viscoelastic Fluid Simulation, Eurographics/ACM SIGGRAPH Symposium on Computer Animation.

This paper talks about visco-elastic fluid simulation. This paper explores more about the physical properties of the fluid.

5. Horvath.P and Illes.D, SPH-Based Fluid Simulation for Special Effects, Department of Control Engineering and Information Technology, Budapest University of Technology and Economics

This paper is mainly about SPH(SMOOTHED PARTICLE HYDRODYANMICS) fluid simulation. It gives an overview of SPH system and how they used this system to create a Houdini Plugin.

6. Dr. Gourlay.M.J (2010), Fluid Simulation for Video Games (part1 and part2), Intel Software Network.

This website is the main source of my knowledge. It is the latest one and it explains all about fluids dynamics in a simple manner. It also explains how fluid dynamics is used in games and how it is implemented.

- 7. Bridson.R, et al. (2006), Fluid Simulation, SIGGRAPH 2006 Course Notes.

 This is a detailed paper on fluid dynamics. The reason for reading this paper was to understand the maths behind fluid simulation.
- 8. Wyvill.B, et al. (1986), Animating soft objects, Department of Computer Science, University of Calgary and University of Otago.

This paper talks about soft bodies and how they behave. It also talks

about how to model and animate soft bodies. Since I did a research on different fields of dynamics at the beginning, I read this paper to know about soft bodies.

9. Selle.A, et al., A Vortex Particle Method for Smoke, Water and explosions, Stanford University, Intel Corporation, Industrial Lights + Magic.

This paper talks about another behaviour about the fluids which is vorticity and turbulence. This paper adds in more knowledge about fluid dynamics.

10. 2004 SIGGRAPH Course 31, The elements of Nature: Interactive and Realistic Techniques.

Refered to some parts of this paper but definitely helpful and more to learn in it.

- 11. Bridson.R, et al., (2006), Fluid Simulation, SIGGRAPH Course Notes.

 This papers covers almost everything about fluid dynamics. Refered some parts of it.
- 12. Muller.M, et al., (2003), Particle- Based Fluid Simulation for Interactive Applications, Department of Computer Science, Federal Institute of Technology Zurich (ETHZ), Eurographics/SIGGRAPH Symposium on Computer Animation.

This paper also talks about Smoothed Particle Hydrodynamics which was quite helpful.

13.Guendelman.E, et al., Coupling Water and Smoke to Thin Deformable and Rigid Shells, Stanford University, Intel Corporation, Industrial Light + Magic.

I had gone through this paper to find out if any relevant stuff is there but did not exactly read the whole paper.

- 14. Houdini Software used to create simulations
- 15. Digital tutors, Introduction to fluids in Houdini, Part1 and part2.

 These tutorials helped to create fluids in Houdini using particles.
- 16. <u>www.sidefx.com</u>, Tutorials, Dynamics, Introduction to Fluid Dynamics in Houdini.

These tutorials helped to learn voxels in Houdini and how they are used to create fluid simulation.