FMFP-2016: Technical Programme Schedule (As on 14th Dec. 2016)
(15-17 December 2016)
MNNIT Allahabad

Day 1: 15 Dec. 2016		
Time	**Venue**	**Session/Paper ID**
8 - 9 AM	Multi-Purpose (M.P.) Hall	**Registration & Breakfast**
9 - 10 AM	M.P. Hall	**Inauguration Ceremony** **Chief Guest:** Prof. T. Sundararajan, IIT Madras **Guest of Honour:** Dr. Friedrich Leopold, ISL France
10 - 11 AM		**Prof. Subir Kar Plenary Lecture by Chief Guest.** **Title:** *Stability of Single and Multiphase Flows- A Review.* **Session Chair:** Prof. Atul Sharma (IIT Bombay)
11 - 11.30 AM	M.P. Hall Ground	**Coffee Break**
11.30 - 1.00 PM **(Tech. Session-I)**	LHC-1	**Track: A-1:** Theoretical Fluid Dynamics- Fundamental Issues and Perspectives. **Session Chair:** Prof. Anirban Guha (IIT Kanpur) **Paper ID:** 21, 49, 50, 289, TH-24.
	LHC-2	**Track: B-1:** Flow Instability, Transition, Turbulence and Control. **Session Chair:** Prof. Arun Kumar Saha (IIT Kanpur) **Paper ID:** 621, 623, 423, 486, 94, 99, 498.
	LHC-3	**Track B-2:** Flow Instability, Transition, Turbulence and Control. **Session Chair:** Prof. Amitabh Bhattacharya (IIT Bombay) **Paper ID:** 81, 183, 241, 277, 382, 450, TH-31.
	LHC-4	**Track: C-1:** Experimental Fluid Dynamics: Flow Measurement Techniques and Instrumentation . **Session Chair:** Prof. Swapan Bhaumik (NIT Agartala) **Paper ID:** 84, 86, 87, 154, 487.
	LHC-5	**Track: D-1:** CFD- Theory and Applications. **Session Chair:** Prof. Amaresh Dalal (IIT Guwahati) **Paper ID:** 125, 168, 180, 203, 234, TH-27.
	LHC-6	**Track: D-2:** CFD- Theory and Applications. **Session Chair:** Dr. Debasis Chakraborty (DRDL Hyderabad) **Paper ID:** 35, 57, 58, 45, 51, TH-6.
	LHC-7	**Track: G-1:** Multiphase Flows. **Session Chair:** Prof. Manabendra Pathak (IIT Patna) **Paper ID:** 187, 225, 315, 364, 570, TH-26.
	LHC-8	**Track: H-1:** Fluid Structure Interaction and Flow Induced Noise **Session Chair:** Prof. Ratnesh K. Shukla (IISc. Bangalore) **Paper ID:** 100, 116, 240, 326, 499, TH-10.
	Instt. Seminar Hall	**Track: H-2:** Fluid Structure Interaction and Flow Induced Noise **Session Chair:** Prof. S. Arunachalam (JUET Guna) **Paper ID:** 24, 103, 105, 490, 503, TH-18.
	SMS LH-1	**Track: I-1:** Micro and Nano Fluid Mechanics **Session Chair:** Prof. K. Muralidhar (IIT Kanpur) **Paper ID:** 258, 322, 442, 509, 627.
	SMS LH-2	**Track: K-1:** Energy and Environment. **Session Chair:** Prof. C.J. Teo (NUS, Singapore) **Paper ID:** 266, 273, 454, 520, 528, 467.
1 - 2 PM	M.P. Hall Ground	**Lunch**
2- 2.45 PM	NLH-1	**Invited Lecture (1): Prof. Kazuo Matsuura (Japan)** on "*Research on the Late-Stage of Laminar-Turbulent Transition*".
	NLH-2	**Invited Lecture (2): Prof. Sanjay Mittal (India)** on "*Experimental and Computational Investigation of the Intermittent Nature of Laminar Separation Bubble in Flow past Bluff Bodies*".
2.45 - 3.30 PM	NLH-1	**Invited Lecture (3): Prof. R.N. Govardhan (India)** on "*Interactions of a bubble with a vortex ring: An idealization of*

		bubbly-turbulent flows ".
	NLH-2	**Invited Lecture (4): Prof. S. Vengadesan (India)** on "*Ground Effect on Tandem Flapping Wings Hovering* ".
3.30 - 3.45 PM	Seminar Hall Lawn	**Coffee Break**
3.45 - 5.15 PM **(Tech. Session-II)**	LHC-1	**Track: A-2:** Theoretical Fluid Dynamics- Fundamental Issues and Perspectives. **Session Chair:** Prof. Sushanta Dutta (IIT Roorkee) **Paper ID:** 133, 139, 172, 414, TH-4.
	LHC-2	**Track: C-2:** Experimental Fluid Dynamics: Flow Measurement Techniques and Instrumentation . **Session Chair:** Dr. Friedrich Leopold (ISL France) **Paper ID:** 376, 409, 434, 542, 592, TH-30.
	LHC-3	**Track: D-3:** CFD- Theory and Applications. **Session Chair:** Prof. C.S. Mathpati (ICT Mumbai) **Paper ID:** 70, 91, 119, 122, 135, 337.
	LHC-4	**Track: D-4:** CFD- Theory and Applications. **Session Chair:** Prof. K.M. Pandey (NIT Silchar) **Paper ID:** 68, 302, 323, 325, 340, 343.
	LHC-5	**Track: D-5:** CFD- Theory and Applications. **Session Chair:** Prof. Anupam Dewan (IIT Delhi) **Paper ID:** 420, 421, 532, 538, 565, TH-2.
	LHC-6	**Track: E-1:** Fluid Machinery, Turbomachinery and Fluid Power. **Session Chair:** Prof. Rupesh D. Shah (SVNIT Surat) **Paper ID:** 284, 294, 303, 332, TH-14.
	LHC-7	**Track: G-2:** Multiphase Flows. **Session Chair:** Prof. Rajneesh Bhardwaj (IIT Patna) **Paper ID:** 188, 200, 210, 211, 478.
	LHC-8	**Track: H-3:** Fluid Structure Interaction and Flow Induced Noise **Session Chair:** Prof. Rakesh Mishra (Univ. of Huddersfield) **Paper ID:** 576, 594, 159, 564.
	Instt. Seminar Hall	**Track: I-2:** Micro and Nano Fluid Mechanics **Session Chair:** Prof. P.K. Panigrahi (IIT Kanpur) **Paper ID:** 37, 112, 243, 281, 401, 505.
	SMS LH-1	**Track: J-1:** Bio-Fluid Dynamics. **Session Chair:** Prof. H. Chattopadhyay (Jadavpur Univ. Kolkata) **Paper ID:** 42, 101, 123, 126, 164, TH-25.
	SMS LH-2	**Track: K-2:** Energy and Environment. **Session Chair:** Prof. Sridhar Balasubramanium (IIT Bombay) **Paper ID:** 269, 440, 456, 468, 550, 143.
4 - 6 PM	Design Centre	**Poster Session-I** **Session Chair:** Prof. V.C. Agarwal (SHIATS, Allahabad) **Paper ID:** 54, 62, 120, 78, 220, 399, 201, 275, 292, 466, 384, 588, 429, 447, 539, 560, 153, 572, 358, 140, 396, 629, 365, 475, 477, 28, 320, 469, 220, 228, 252, 276, 515, 104, 121, 151, 278, 106, 584, 371, 206, 531, 484, 274.
7 - 8.30 PM	M.P. Hall	**Cultural Programme**
8 PM onwards	M.P. Hall Ground	**Dinner**

Day 2: 16 Dec. 2016		
Time	**Venue**	**Session/Paper ID**
7.30 - 8.30 AM	M.P. Hall	Registration and Breakfast
8.30 - 9.30 AM	M.P. Hall	**Prof. Aswatha Narayana Keynote Lecture: Dr. F. Leopold (France)** on "*Algebraic Reconstruction of the Density Field of Compressible Flows using the Colored Background Oriented Schlieren Technique*". **Session Chair:** Prof. P.K. Panigrahi (IIT Kanpur)
9.45 - 11.15 AM **(Tech. Session-III)**	LHC-1	**Track: A-3:** Theoretical Fluid Dynamics- Fundamental Issues and Perspectives. **Session Chair:** Prof. Arnab Kumar Ray (JUET Guna) **Paper ID:** 65, 128, 282, 527, TH-9.
	LHC-2	**Track: B-3:** Flow Instability, Transition, Turbulence and Control. **Session Chair:** Prof. Somnath Roy (IIT Patna) **Paper ID:** 132, 227, 350, 521, TH-3.
	LHC-3	**Track: C-3:** Experimental Fluid Dynamics: Flow Measurement Techniques and Instrumentation . **Session Chair:** Prof. P.K. Panigrahi (IIT Kanpur) **Paper ID:** 16, 163, 352, 427, 549.
	LHC-4	**Track: D-6:** CFD- Theory and Applications. **Session Chair:** Prof. Amaresh Dalal (IIT Guwahati) **Paper ID:** 8, 40, 80, 298, 359, 562.
	LHC-5	**Track: D-7:** CFD- Theory and Applications. **Session Chair:** Prof. C.S. Mathpati (ICT Mumbai) **Paper ID:** 169, 237, 329, 25, 34, TH-28.
	LHC-6	**Track: E-2:** Fluid Machinery, Turbomachinery and Fluid Power. **Session Chair:** Prof. Rajesh N. Patel (Nirma University) **Paper ID:** 2, 18, 38, 60, 456, TH-23.
	LHC-7	**Track: G-3:** Multiphase Flows. **Session Chair:** Prof. Manabendra Pathak (IIT Patna) **Paper ID:** 300, 491, 510, 555, 568, 602.
	LHC-8	**Track: G-4:** Multiphase Flows. **Session Chair:** Prof. Rishi Raj (IIT Patna) **Paper ID:** 4, 174, 260, 305, TH-8.
	Instt. Seminar Hall	**Track: I-3:** Micro and Nano Fluid Mechanics **Session Chair:** Prof. K. Muralidhar (IIT Kanpur) **Paper ID:** 194, 197, 229, 290, 404.
	SMS LH-1	**Track: J-2:** Bio-Fluid Dynamics. **Session Chair:** Prof. S. Vengadesan (IIT Madras) **Paper ID:** 368, 411, 523, 589, 616.
11.15 - 11.30 AM	Seminar Hall Lawn	**Coffee Break**
11.30 - 1 PM **(Tech. Session-IV)**	LHC-1	**Track: A-4:** Theoretical Fluid Dynamics- Fundamental Issues and Perspectives. **Session Chair:** Prof. Arnab Kumar Ray (JUET Guna) **Paper ID:** 338, 402, 593, 606.
	LHC-2	**Track: B-4:** Flow Instability, Transition, Turbulence and Control. **Session Chair:** Prof. Arun Kumar Saha (IIT Kanpur) **Paper ID:** 369, 385, 400, 428, 469, 604.
	LHC-3	**Track: B-5:** Flow Instability, Transition, Turbulence and Control. **Session Chair:** Prof. Amitabh Bhattacharya (IIT Bombay) **Paper ID:** 312, 379, 470, 472, 607, 622.
	LHC-4	**Track: C-4:** Experimental Fluid Dynamics: Flow Measurement Techniques and Instrumentation . **Session Chair:** Prof. Rajneesh Bhardwaj (IIT Patna) **Paper ID:** 114, 118, 232, 242, 464.
	LHC-5	**Track: D-8:** CFD: Theory and Applications. **Session Chair:** Prof. Sawan Suman Sinha (IIT Delhi) **Paper ID:** 563, 567, 88, 327, 328, 346.
	LHC-6	**Track: D-9:** CFD- Theory and Applications. **Session Chair:** Prof. K.M. Pandey (NIT Silchar) **Paper ID:** 344, 380, 496, 511, 311, TH-12.

	LHC-7	**Track: G-5:** Multiphase Flows. **Session Chair:** Prof. Absar M. Lakhdawala (Nirma University) **Paper ID:** 109, 111, 254, 304, 342, 436, TH-29.
	LHC-8	**Track: K-3:** Energy and Environment. **Session Chair:** Prof. Anthony Johnson (South Korea) **Paper ID:** 209, 213, 268, 536, 547.
	Instt. Seminar Hall	**Track: K-4:** Energy and Environment. **Session Chair:** Prof. R.N. Govardhan (IISc. Bangalore) **Paper ID:** 47, 92, 117, 366, 524.
	SMS LH-1	**Track: L-1:** Specialized Topics **Session Chair:** Dr. V.K. Singh (SAC-ISRO, Ahmedabad) **Paper ID:** 43, 97, 181, 223, 257, TH-7.
1 - 2 PM	M.P. Hall Ground	**Lunch**
2 - 2.45 PM	NLH-1	**Invited Lecture (5): Prof. Blaise Nsom (France)** on "*Risk Assessment of Mechanical Disaster with Fluid Dynamics Approach*".
	NLH-2	**Invited Lecture (6): Prof. C.J. Teo (Singapore)** on "*Research on Pulse Detonation Engines* ".
2.45 - 3.30 PM	NLH-1	**Invited Lecture (7): Dr. Debasis Chakraborty (India)** on " *Development and Applications of CFD Techniques in Aeropropulsive Design of Aerospace Vehicles* ".
	NLH-2	**Invited Lecture (8): Prof. Anupam Dewan (India)** on "*Slot Jet Impingement Heat Transfer using RANS Approach and LES* ".
3.30 - 3.45 PM	Seminar Hall Lawn	**Coffee Break**
3.45 - 5.15 PM **(Tech. Session-V)**	LHC-1	**Track: D-10:** CFD- Theory and Applications. **Session Chair:** Prof. Sekhar Majumdar (NMIT Bangalore) **Paper ID:** 318, 596, 597, 601, 608, 626.
	LHC-2	**Track: D-11:** CFD- Theory and Applications. **Session Chair:** Prof. Sawan Suman Sinha (IIT Delhi) **Paper ID:** 53, 141, 389, 393, 540.
	LHC-3	**Track: F-1:** I.C. Engines and Gas Turbines. **Session Chair:** Prof. Ravi Prakash (MNNIT Allahabad) **Paper ID:** 265, 355, 357, 433, 533, TH-13.
	LHC-4	**Track: G-6:** Multiphase Flows. **Session Chair:** Dr. Ved Prakash Mishra (Reliance Ind.) **Paper ID:** 394, 406, 449, 494, 500, 516.
	LHC-5	**Track: G-7:** Multiphase Flows. **Session Chair:** Prof. Rajneesh Bhardwaj (IIT Patna) **Paper ID:** 113, 218, 224, 233, 239, 255, 632, TH-20.
	LHC-6	**Track: G-8:** Multiphase Flows. **Session Chair:** Prof. Kazuo Matsuura (Ehime Univ., Japan) **Paper ID:** 297, 309, 314, 324, 331, 336.
	LHC-7	**Track: I-4:** Micro and Nano Fluid Mechanics **Session Chair:** Dr. B.N. Murthy (Reliance Industries) **Paper ID:** 44, 235, 293, 361, 485, TH-21.
	LHC-8	**Track: K-5:** Energy and Environment. **Session Chair:** Prof. Sanchayan Mukherjee (KGEC, Kalyani) **Paper ID:** 256, 319, 413, 443, TH-11.
	Instt. Seminar Hall	**Track: K-6:** Energy and Environment. **Session Chair:** Prof. Blaise Nsom **Paper ID:** 147, 270, 398, TH-1.
	SMS LH-1	**Track: M-1:** Contemporary Issues. **Session Chair:** Prof. C.R. Rao (Ex. MNNIT Allahabad) & Mr. A.K. Jain (Acripods India Ltd.). **Paper ID:** 19, 575, 480, 613.
4 - 6 PM	Design Centre	**Poster Session-II** **Session Chairs:** Prof. R.P. Singh (CED, MNNIT) **Paper ID:** 416, 212, 245, 573, 609, 30, 130, 283, 360, 518, 219, 388, 459, 171, 334, 348, 339, 412, 439, 156, 341, 9, 410, 250, 386, 29, 483, 430, 462, 545, 13, 62, 22, 23, 10, 96, 129, 1, 17.
6 - 7 PM	Instt. Seminar Hall	**General Body Meeting (GBM) of NSFMFP**
8 PM onwards	M.P. Hall Ground	**Conference Dinner at M.P. Hall Ground**

Day 3: 17 Dec. 2016		
Time	**Venue**	**Session/Paper ID**
7.30 - 8.30 AM	M.P. Hall, MNNITA	Registration & Breakfast
8.30 - 9.15 AM	NLH-1	**Invited Lecture (9): Prof. Q. Yang (China)** on "*Characteristics of Pedestrian-Level Wind around Super-Tall Buildings with Various Configurations* ".
	NLH-2	**Invited Lecture (10): Er. Sharad Tripathi (France)** on "*Emerging Engineering Trends* **".**
9.15 - 10 AM	NLH-1	**Invited Lecture (11): Prof. Sekhar Majumdar (India)** on "*Numerical Simulation of Transitional and Turbulent Flow in Arbitrary Shaped Configurations*".
10 - 10.15 AM	Seminar Hall Lawn	**Coffee Break**
10.15 - 11.45 AM **(Tech. Session-VI)**	LHC-1	**Track: A-5:** Theoretical Fluid Dynamics- Fundamental Issues and Perspectives. **Session Chair:** Prof. Sushanta Dutta (IIT Roorkee) **Paper ID:** 202, 310, 431, 448, 522, 578.
	LHC-2	**Track: B-6:** Flow Instability, Transition, Turbulence and Control. **Session Chair:** Prof. Somnath Roy (IIT Patna) **Paper ID:** 587, 632, 261, 493.
	LHC-3	**Track: B-7:** Flow Instability, Transition, Turbulence and Control. **Session Chair:** Prof. Vinod Kumar Nema & Prof. C.R. Rao (Ex. MNNIT Allahabad) **Paper ID:** 517, 530, 553, 590.
	LHC-4	**Track: C-5:** Experimental Fluid Dynamics: Flow Measurement Techniques and Instrumentation . **Session Chair:** Prof. V. Arumuru (IIT Bhubaneswar) **Paper ID:** 222, 543, 585, 625, 347, TH-17.
	LHC-5	**Track: D-12:** CFD- Theory and Applications. **Session Chair:** Prof. Sathyanarayana A. (IIT Bhubaneswar) **Paper ID:** 495, 508, 74, 108, TH-16.
	LHC-6	**Track: E-3:** Fluid Machinery, Turbomachinery and Fluid Power. **Session Chair:** Prof. BVSSS Prasad (IIT Madras) **Paper ID:** 110, 157, 184, 306, 471.
	LHC-7	**Track: H-4:** Fluid Structure Interaction and Flow Induced Noise **Session Chair:** Prof. K.P. Sinhamahapatra (IIT Kharagpur) **Paper ID:** 160, 190, 231, 418.
	LHC-8	**Track: J-3:** Bio-Fluid Dynamics. **Session Chair:** Prof. H. Chattopadhyay (Jadavpur Univ. Kolkata) **Paper ID:** 182, 415, 492, 546, 591.
	Instt. Seminar Hall	**Track: K-7:** Energy and Environment. **Session Chair:** Dr. S.K. Dahikar (Reliance Industries) **Paper ID:** 77, 345, 551, 556, 577, 581.
	SMS LH-1	**Track: L-2:** Specialized Topics **Session Chair:** Dr. V.K. Singh (SAC-ISRO, Ahmedabad) **Paper ID:** 248, 351, 353, 444, 446, 595, 598.
11.45 - 1.15 PM **(Tech. Session-VII)**	LHC-1	**Track: D-13:** CFD- Theory and Applications. **Session Chair:** Er. Rakesh Kumar (ADE Bangalore) **Paper ID:** 56, 226, 271, 288, 504, TH-19.
	LHC-2	**Track: E-4:** Fluid Machinery, Turbomachinery and Fluid Power. **Session Chair:** Prof. Rajesh N. Patel (Nirma University) **Paper ID:** 176, 301, 316, 375, 579, 580.
	LHC-3	**Track: E-5:** Fluid Machinery, Turbomachinery and Fluid Power. **Session Chair:** Prof. Vishnu Prasad (MANIT Bhopal) **Paper ID:** 473, 474, 529, 614, 615, 628.
	LHC-4	**Track: F-2:** I.C. Engines and Gas Turbines. **Session Chair:** Prof. Ravi Prakash (MNNIT Allahabad)

		Paper ID: 308, 514, 525.
	LHC-5	**Track: I-5:** Micro and Nano Fluid Mechanics **Session Chair:** **Paper ID:** 5, 41, 66, 383, 435, 455.
	LHC-6	**Track: K-8:** Energy and Environment. **Session Chair:** Prof. J.S. Jayakumar (Amrita University, Kerala) **Paper ID:** 124, 144, 285, 286, 381, TH-22.
1.15 -2.15 PM	M.P. Hall Ground	**Lunch**
2.15 - 3.45 PM **(Tech. Session-VIII)**	LHC-1	**Track: C-6:** Experimental Fluid Dynamics: Flow Measurement Techniques and Instrumentation . **Session Chair:** Prof. V. Arumuru (IIT Bhubaneswar) **Paper ID:** 166, 177, 193, 403.
	LHC-2	**Track: D-14:** CFD- Theory and Applications. **Session Chair:** Prof. Sathyanarayana A. (IIT Bhubaneswar) **Paper ID:** 391, 392, 419, 422, 432.
	LHC-3	**Track: E-6:** Fluid Machinery, Turbomachinery and Fluid Power. **Session Chair:** Prof. BVSSS Prasad (IIT Madras) **Paper ID:** 46, 191, 291, 321, 349.
	LHC-4	**Track: E-7:** Fluid Machinery, Turbomachinery and Fluid Power. **Session Chair:** Prof. B. K. Gandhi (IIT Roorkee) **Paper ID:** 11, 134, 175, 295, 557, TH-15.
	LHC-5	**Track: G-9:** Multiphase Flows. **Session Chair:** Prof. Rakesh Mishra (Univ. of Huddersfield, U.K.) **Paper ID:** 48, 55, 69, 72, 82, 162, 356.
	LHC-6	**Track: I-6:** Micro and Nano Fluid Mechanics **Session Chair:** **Paper ID:** 85, 107, 230, 485, 610, 617.
	LHC-7	**Track: K-9:** Energy and Environment. **Session Chair:** Prof. Mihir Das (IIT Bhubaneswar) **Paper ID:** 92, 142, 205, 618, 619, 620.
	LHC-8	**Track: M-2:** Contemporary Issues. **Session Chair:** Prof. Ravi Prakash (MNNITA) & Dr. Nipu Modak (Jadavpur Univ., Kolkata). **Paper ID:** 90, 264, 586, 611.
3.45 - 4.45 PM	Instt. Seminar Hall	**Valedictory Ceremony**
4.45 PM		**Coffee and Departure**

TH: Thematic talk.